The Orchadian

Volume 19, Number 3 March 2018

Official Journal of the Australasian Native Orchid Society Inc.

Thelymitra magnifica Photo Andrew Brown

Royal Botanic Gardens
Melbourne

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The Orchadian

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Please include your contact information for communication and publication.

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17th DENDROBIUM SPECIOSUM SPECTACULAR & AUSTRALASIAN ORCHID SPECIES and HYBRID SHOW 2018

Kempsey, NSW

(Ted & Winsome Walmsley and the ANOS Mid North Coast Group)

Dates for this event which provides a first class opportunity to see some of the best speciosums in flower as well as a wide range of other Australasian orchids and hybrids, are given below. Note the dates and plan to be there. All are welcome to exhibit and judging will be by an all ANOS panel. Monetary prizes and trophies will be awarded in a range of classes including species, hybrids and terrestrials.

Interstate entries are encouraged with a prize for the most travelled orchid.

***Dates*: Sat 1st Sept 10am to 4pm [Closed for judging b/w 11am and 12 noon this day]**

Sun 2nd Sept 9am to 2pm

Location: Kempsey Dirt Bike Track, Alverton St., Greenhill, via Kempsey.

Details: Refer to the website: www.kempseyspeciosumspectacular.com.au

OR contact Ted Walmsley on (02) 6562-7150 or John Zietsch on (02) 6554-9733.

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Editorial

'Citizen science' is a relatively new term for the well established tradition of involvement of people who may have no formal scientific training in investigative projects. Naturalists and enthusiastic volunteers have undertaken field work and monitoring of orchid populations for many decades, sometimes in association with scientists and herbaria or tertiary research institutions. They have made key contributions such as the discovery of new taxa, extension of distribution of species, and changes to distributions over time. A recent trend is to engage groups of citizens in monitoring selected orchid populations as part of conservation programs, some of which have funding. In this issue, Andrew Brown explains the Western Australian Adopt an Orchid Project (ADORP), presenting some striking orchids as illustrations.

There are a number of requirements to ensure successful outcomes for citizen science initiatives. These include a well planned, feasible program, supervision by appropriate scientists, and education of volunteers in the tasks required. There must be a continuity in approach and standards over the life of the project. Recognition of terrestrial orchid taxa can be difficult for scientists, more so for less experienced people due to the complexity of subtle variations, and of natural hybrids, some still not identified. Consistent accurate identification is a big challenge. Volunteers are a necessity in conservation projects due to a low level of funding, and it is hoped that this strategy will produce results and be cost effective.

The Orchadian publishes articles on orchid hybrid breeding which indicate the percentage composition for particular registered hybrids, based on the known parents in the background. Geneticists may take issue with this approach as it can imply that the appearance of hybrids is predictable from percentage composition. Most breeders and growers know this is not necessarily the case. In making hybrids, there are observable influences of some species but a wide range of variation in progeny. We publish the percentages with an explanation that percentages cannot predict phenotypic (appearance) outcomes. Species may influence the results of hybridisation differently depending on a number of factors, including what other species have been used, and the stage in the background of breeding when the species is introduced. Many genes are involved in a complex way to produce the form of the plant and flower. There are no key markers for Australian dendrobiums and *Sarcochilus* that can be used for planning and reviewing results, so in general terms, the influence of particular species, and the theoretical species percentage composition are the only indicators that can be used. Past experience and results with different crossings remain the main tools of the hybridist.

Dendrobium bifalce is the only member of *Dendrobium* section *Latouria* in Australia. Although the flowers may be considered small in relation to the size of the plant, the stripes and floral features have a significant influence on hybrids, as Pam Porteous from Queensland writes in her account in this issue. Peter Tonelli, the Honorary Warden of the Henry Somerset Conservation Area, describes the establishment of this reserve in northern Tasmania, and offers details of some of the more than 60 species of terrestrial orchids that occur there. The reserve is the first example of its kind in Tasmania, an example of a special area conserved for the long term, and there are several others scattered in different regions of the state.

The ANOS website databases and list of registered Australian orchid hybrids as described by the ANOS Melbourne Suburbs IT Group is a notable achievement for ANOS. Keith Riseley and his team have developed a hybrid list that can be continuously updated and printed as a hard copy at any time, avoiding the problem of outdated hybrid book lists.

Noel Grundon provides a report on *Habenaria propinquior* and David Butler gives an account of successful Australian dendrobium hybrids with excellent photographs. There are also some 2017 Show Reports, recent awards and a report from the National Judging Registrar, Dave Groffen.

Peter Adams

President's Report

ANOS Inc. has traditionally held a triennial conference and show, the most recent being combined with the Kempsey Speciosum Spectacular in 2016. It has become increasingly difficult for individual groups to commit resources and funds to run this event alone. Therefore ANOS Council had determined to provide both resources and the finance for the next triennial show, while asking a group to host it in their region. We are pleased to announce that KABI Group have taken up the challenge of this cooperative venture.

The 9th ANOS Conference and Show, 'Get Going, Get Growing', will be held at the Strathpine Community Centre in Queensland from Wednesday 21st to Sunday 26th August 2019. The theme has been chosen to promote and encourage the range of activities of groups and members in rejuvenating and expanding their interests and enjoyment of Australian orchids. An exciting format of speakers and workshops is planned, covering a number of different topics, including culture and breeding of *Dendrobium* and *Sarcochilus*, warm and cool growing plants, and terrestrials. There will be a sales area with vendors, to be announced, and a photography competition. A dedicated half day of training in the form of an ANOS Judges Workshop is scheduled, open to judges and student judges, who are strongly encouraged to attend and participate.

We ask all ANOS groups to support the event by promoting and attending the conference and show, considering sponsorship of prizes, and helping in other practical ways. Groups and individual members are invited to contribute by putting in plants or a stand in the show. It is an opportunity for ANOS to showcase Australian and Australasian orchids, and for groups to promote themselves and their activities. Further information will be circulated to groups shortly.

Very shortly we will be sending out more specific information about the conference program and workshops, and the show schedule with prize money details. There will be two Grand Champions - Best Species and Best Hybrid. We will be providing regular updates regarding progress and planning. If you wish to register for these updates, please go to our website anos.org.au and sign up for our newsletter. Put the dates in your diary and start planning!

A reminder to members that subscriptions are due at the end of the financial year to continue to receive your membership and copy of the journal. It creates a lot of work for our hardworking committee if reminders and back copies have to be individually sent due to late payments. Our website provides an easy way to pay your subscription online. We are now offering two year subscriptions for the convenience of members and urge you to take this opportunity.

A new hybrid list is now on the website for members, and will be updated regularly. Thanks to Keith Riseley and the IT group from ANOS Melbourne Suburbs Group who spent many days developing the list. A hard copy will be printable from the website if people wish to do so.

The next ANOS Travel Club venture exclusive for members will be to Western Australia in 2018. Watch out for further details. ANOS Council continues to provide extra services for members, including the regular newsletter. If you have activities to be advertised, please contact the webmaster via the website for inclusion in the next newsletter.

I wish you all good growing and good health in 2018.

Sheryl Lawson

From July 2018 an optional two year subscription to *The Orchadian* is strongly encouraged. Please consider its convenience for yourself and increased efficiency for both our Membership Secretary and Treasurer.

The Western Australian Adopt an Orchid Project (ADORP)

Andrew Brown
andrewbrown3@optusnet.com.au

With an estimated 7000 plant species, most endemic, the south-west corner of Western Australia is one of the planet's major biodiversity hotspots. This recognition of global significance is based on high levels of natural diversity together with high levels of threat to that diversity. It is one of only five Mediterranean-type ecosystems to be listed as globally significant and one of the few hotspots in a developed country. The importance of its biodiversity is also recognised by the Government of Australia, with five of the 15 national biodiversity hotspots located within the region.

The climate is characterised by winter rains and dry summers. The vegetation is predominantly eucalyptus woodland, forest, mallee heath and shrubland, with nearly 70% of the plants endemic to the region. Native plants, including orchids, have evolved over time to adapt to the nutrient-poor, sandy and lateritic soils.

Unfortunately, this corner of Australia has been subject to extensive change which threatens the survival of many unique plant species. Since European settlement in 1829, large areas of land have been cleared for agriculture and urban development. Throughout the Wheatbelt Region, over 80% of the natural vegetation has been cleared for agriculture, while many parts of the coastal vegetation between Geraldton and Albany have been cleared to cater for urban expansion and agriculture. Much of the remaining bushland is fragmented and degraded, being surrounded by housing, grazed areas and cleared pasture, rendering it vulnerable to further human influences. In many areas, stock and feral animals have destroyed habitat by trampling, over-grazing and introducing exotic weeds. Clearing of the vegetation has led to rising groundwater levels, resulting in increased soil salinity, and destroying the low-lying habitats which are favoured by some plant species. Terrestrial orchids are particularly susceptible.

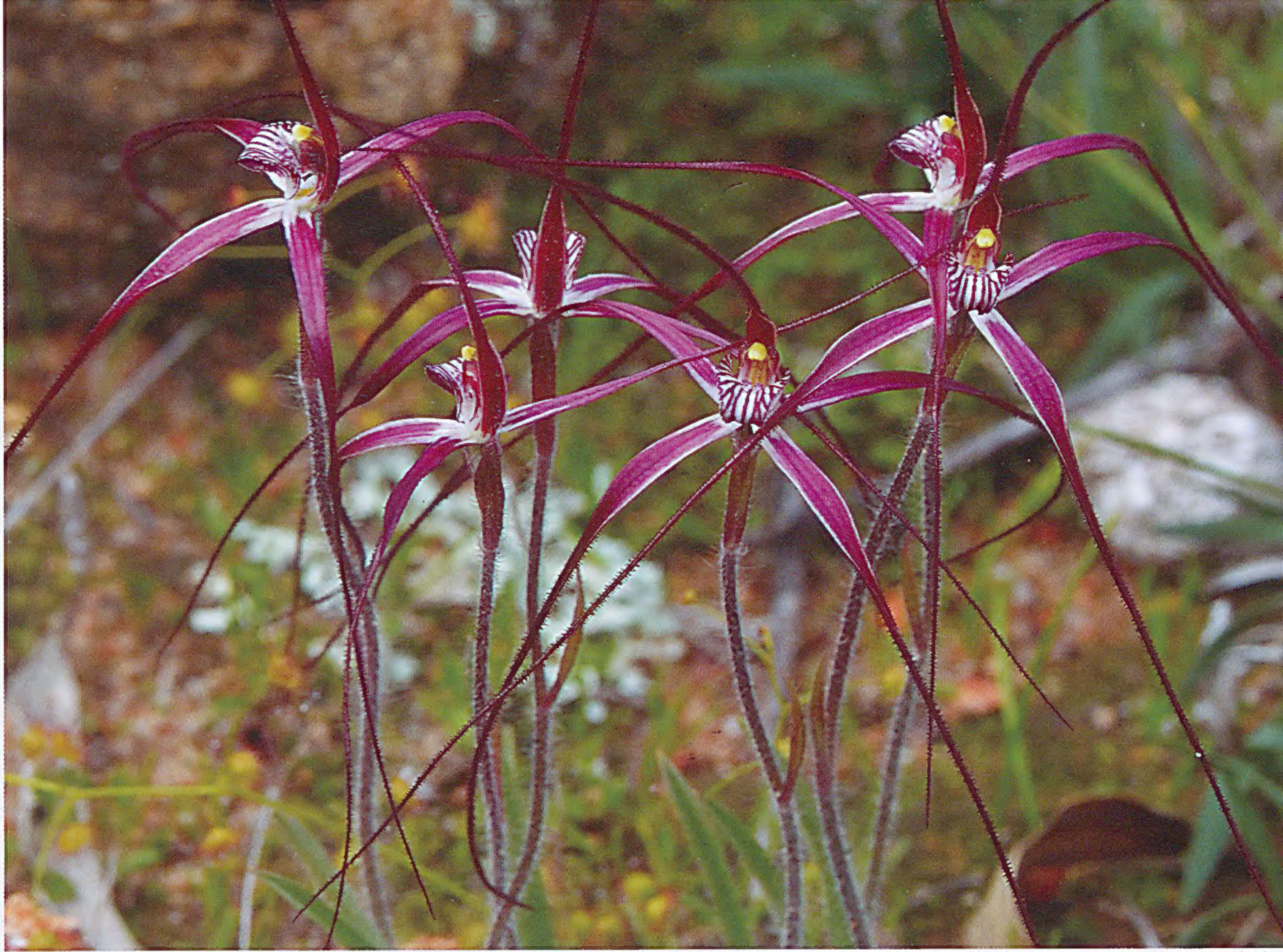
One of the biggest threats has been the spread of the root-rot fungus *Phytophthora cinnamomi*, commonly known as dieback, which has the potential to kill up to 40% of plant species and dramatically changing the habitat occupied by orchids. On top of all these problems, global climate change causes uncertain weather conditions and increasing periods of drought which threaten to overturn the delicate balance for survival for many plants.

In the face of these threats it is not surprising that many orchid species that were once common are now rare. An example is *Caladenia huegelii*, one of the state's largest and most attractive spider orchids, which was almost certainly once abundant in the mixed *Banksia* and *Eucalyptus* woodland of the Swan Coastal Plain between Perth and Bunbury. It is now restricted to a few mostly small bush remnants, isolated by residential areas and farmland. Other orchids may always have been rare due to specialised habitat, but following clearing they are close to extinction. It is possible that some may already be extinct without ever having been discovered.

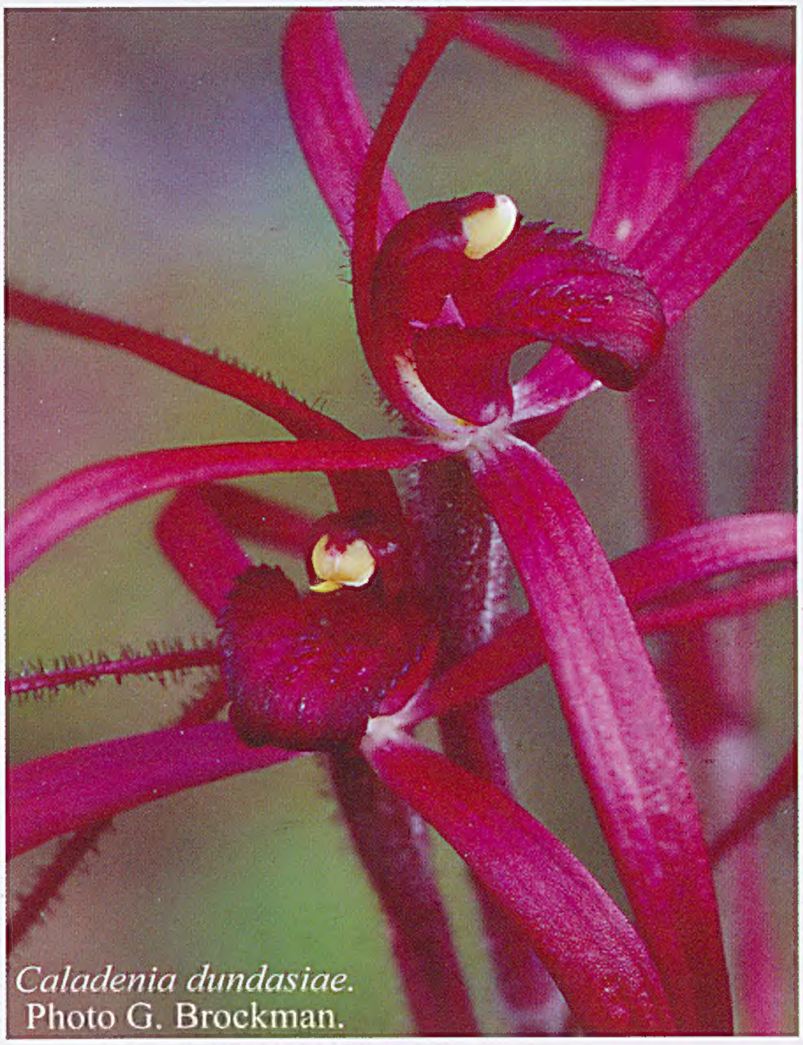
Threatened and Priority Flora

Under Western Australian legislation, the *Biodiversity Conservation Act 2016* provides for the protection of plant species that are under threat of extinction, are rare, or are in need of special protection. The State Minister for the Environment can declare a plant species as "threatened" if it fulfils any of these criteria. Such a plant may not be removed or collected from anywhere (including private land) without the permission of the Minister. As at16th January 2018, 427 plant species, including 41 orchids, were listed as threatened flora. The threats faced by a plant species are reviewed and prioritised by a scientific panel according to the International Union for Conservation of Nature (IUCN) Red List criteria and are ranked as Critically Endangered, Endangered or Vulnerable based on degree of threat. Resources and expertise are then directed to the conservation of those plant species considered most at threat of extinction.

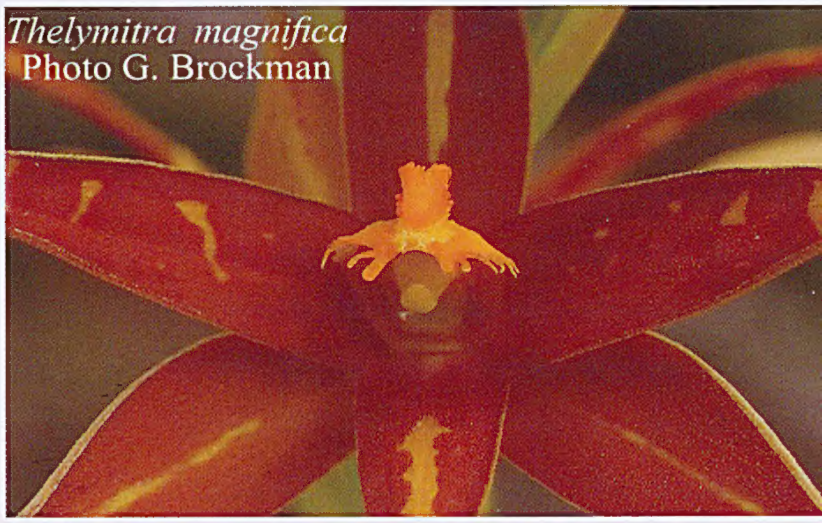
The State Department of Biodiversity, Conservation and Attractions (DBCA) develops a species-specific plan, called an Interim Recovery Plan (IRP) which identifies the threats faced and recovery actions required. IRPs run for five years, at the end of which the objective is to either



Caladenia dundasiae showing characteristic narrow, spreading to pendulous tepals, & small red or pink, white-marked labellum with serrate fringe segments & 2 rows of red-tipped calli. Photo David Lawson.



Caladenia dundasiae.
Photo G. Brockman.



Thelymitra magnifica
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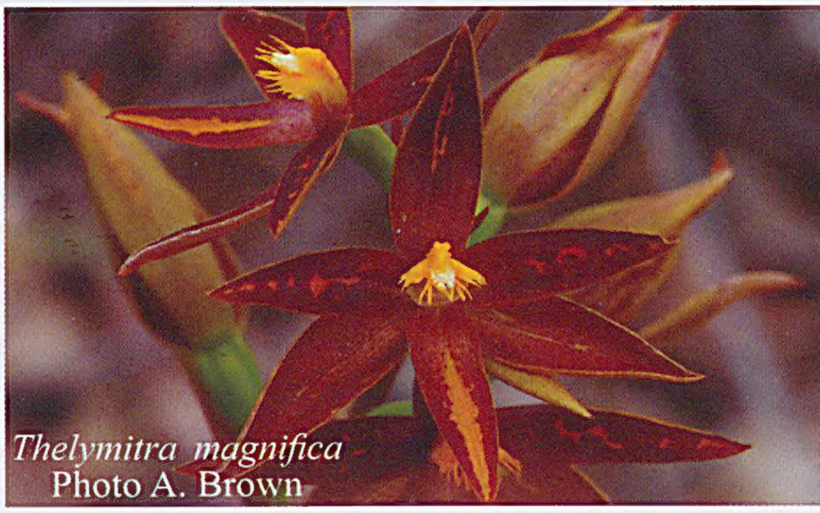


Thelymitra magnifica
Photo A. Brown

downgrade the threatened status of the plant species (that is, the plan has been successful) or revise and re-implement the plan for a further five years (further recovery work is required).

While DBCA resources are understandably geared towards conservation of threatened flora species, there are many other potentially rare or threatened that have yet to be fully assessed. These species are known from only a few collections or sites and have not yet been fully surveyed to assess their conservation status. Such species may be rare or threatened, but cannot be declared as threatened until proper assessments have been undertaken. These plant species are listed by DBCA as priority flora. The Western Australian Herbarium's FloraBase currently lists 3182 priority flora, including 66 orchid species. Priority flora are ranked in five categories.

Priority 1 flora are known from one or a few collections or sight records, on lands not managed for conservation and under immediate threat of habitat destruction or degradation.

Priority 2 flora are known from one or a few collections, some of which are on lands not under imminent threat.

Priority 3 flora are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Priority 4 flora are (a) rare flora which have been adequately surveyed, or for which sufficient knowledge is available, and are considered not currently threatened or in need of special protection but could be if circumstances change; (b) near threatened flora which have been adequately surveyed and do not qualify for Conservation Dependent status but are close to qualifying for Vulnerable; or (c) flora that have been removed from the list of threatened flora during the past five years for reasons other than taxonomy.

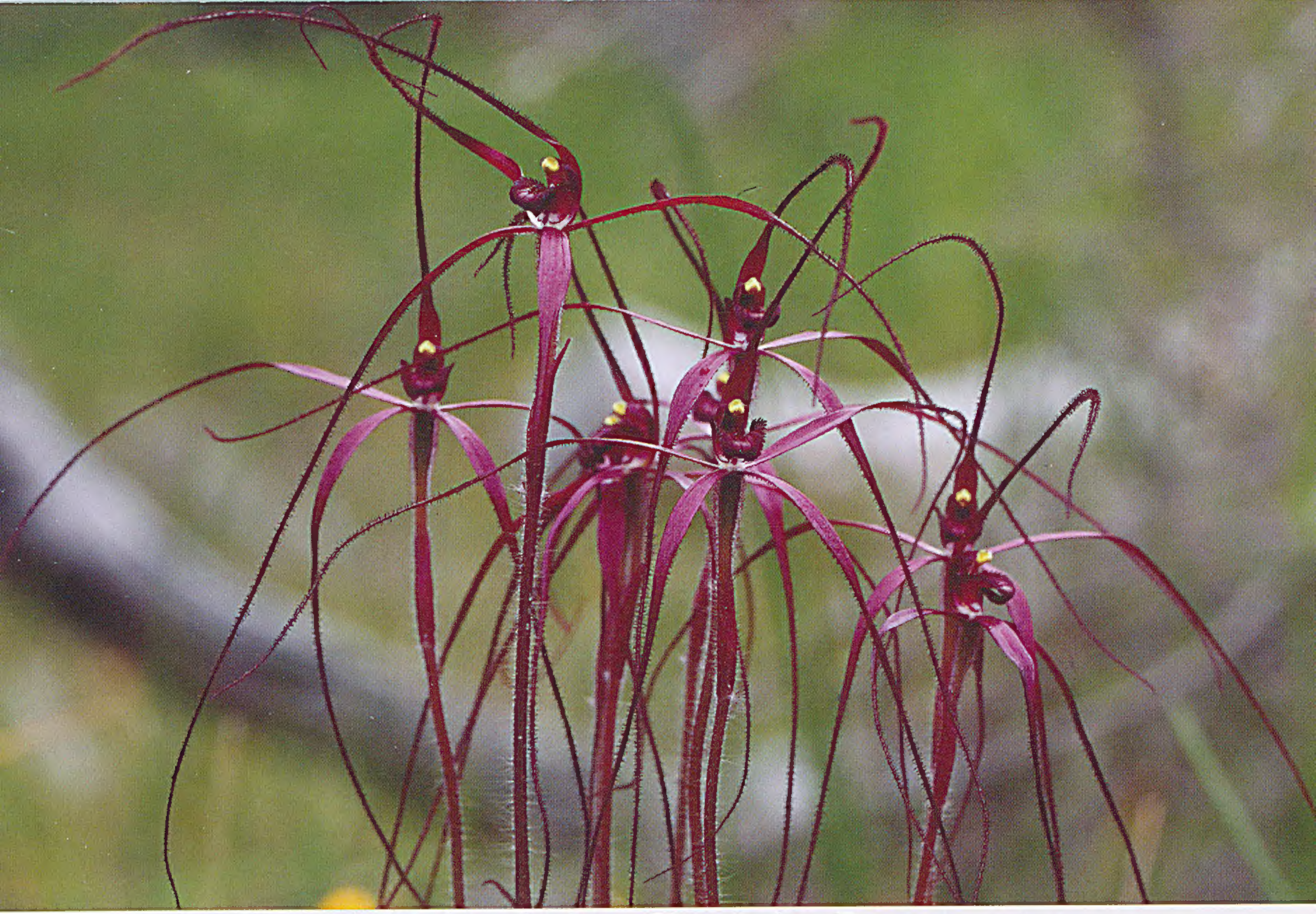
Priority 5 flora include conservation dependent flora that are not threatened but are subject to a specific conservation program, the cessation of which would result in the flora becoming threatened within five years.

The ADORP project

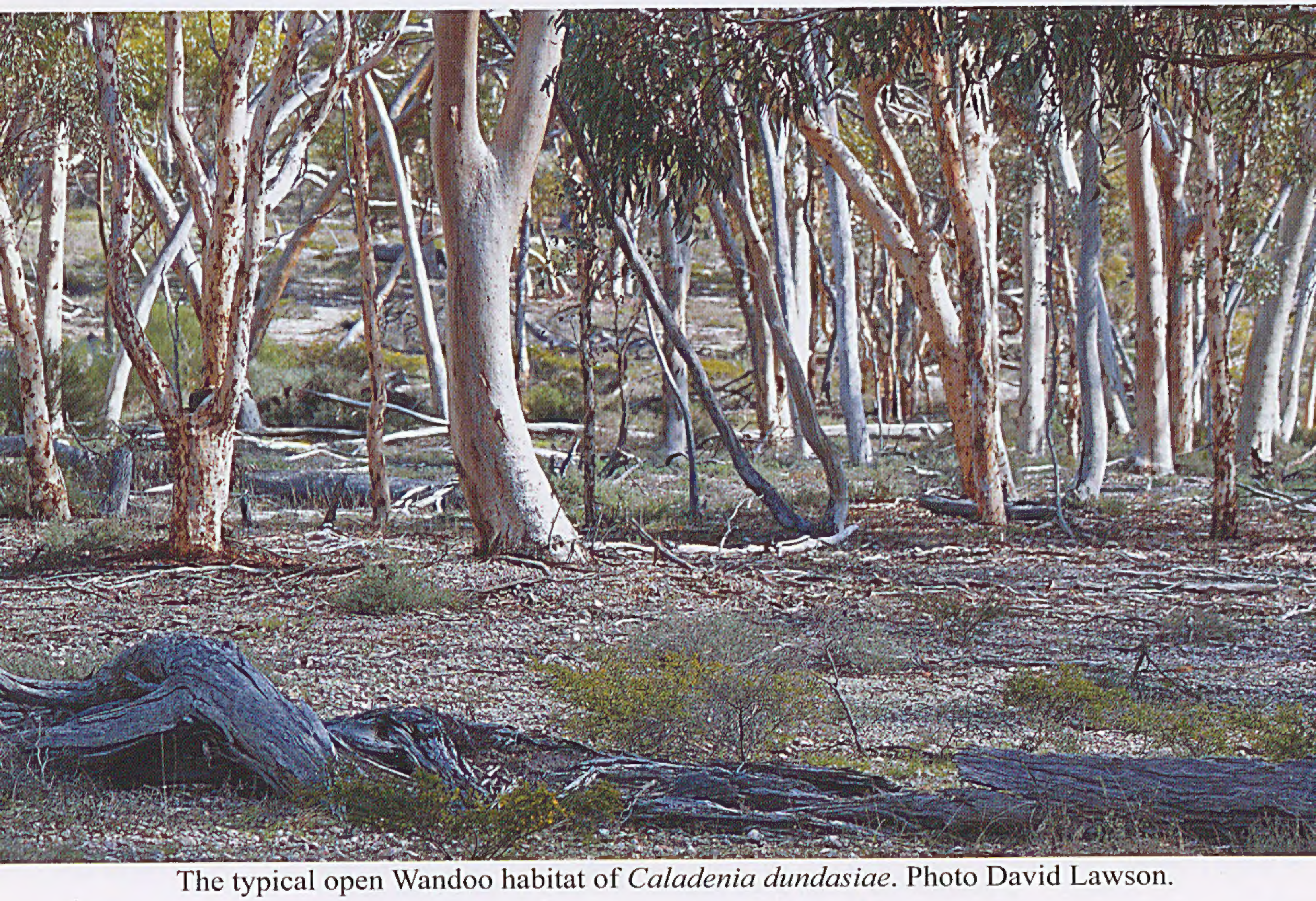
The task of protecting such a large number of threatened and priority flora is huge. The DBCA is necessarily focussed on implementing survey and recovery programs for threatened flora, so less time and effort is available for priority flora. Nevertheless, the need for help in assessing the conservation status of priority flora has been recognised. In a pilot program, which may later be expanded, the DBCA collaborated with the Western Australian Native Orchid Study and Conservation Group (WANOSCG) to obtain better and up-to-date population, threat and survey information for the priority orchid species. In 2011, the Adopt an Orchid Project (ADORP) began, with groups of volunteers adopting an orchid species or group of orchid species to undertake monitoring and surveys. The project covers Priority 1-3 species.

DBCA and WANOSCG co-ordinators, in cooperation with DBCA regional staff, oversee the project by managing small groups of volunteers (no more than six per group) who collect information for their adopted orchid species. Group members agree to adhere to ADORP and DBCA protocols and guidelines, to provide report forms on at least an annual basis, and to contact the DBCA District Flora Conservation Officer who will help plan the trip(s) and discuss hygiene matters and precautions when entering sensitive (dieback) areas. Each group is provided with an information pack which contains: a general introduction to the project, a copy of the threatened and priority report form, a field manual, contact details for the DBCA District Flora Conservation Officer and information on identifying the orchid(s), including photographs, descriptions, life cycle information (flowering time, fruiting), known locations of the species, type(s) of habitat to survey, and threats to the plants to be identified.

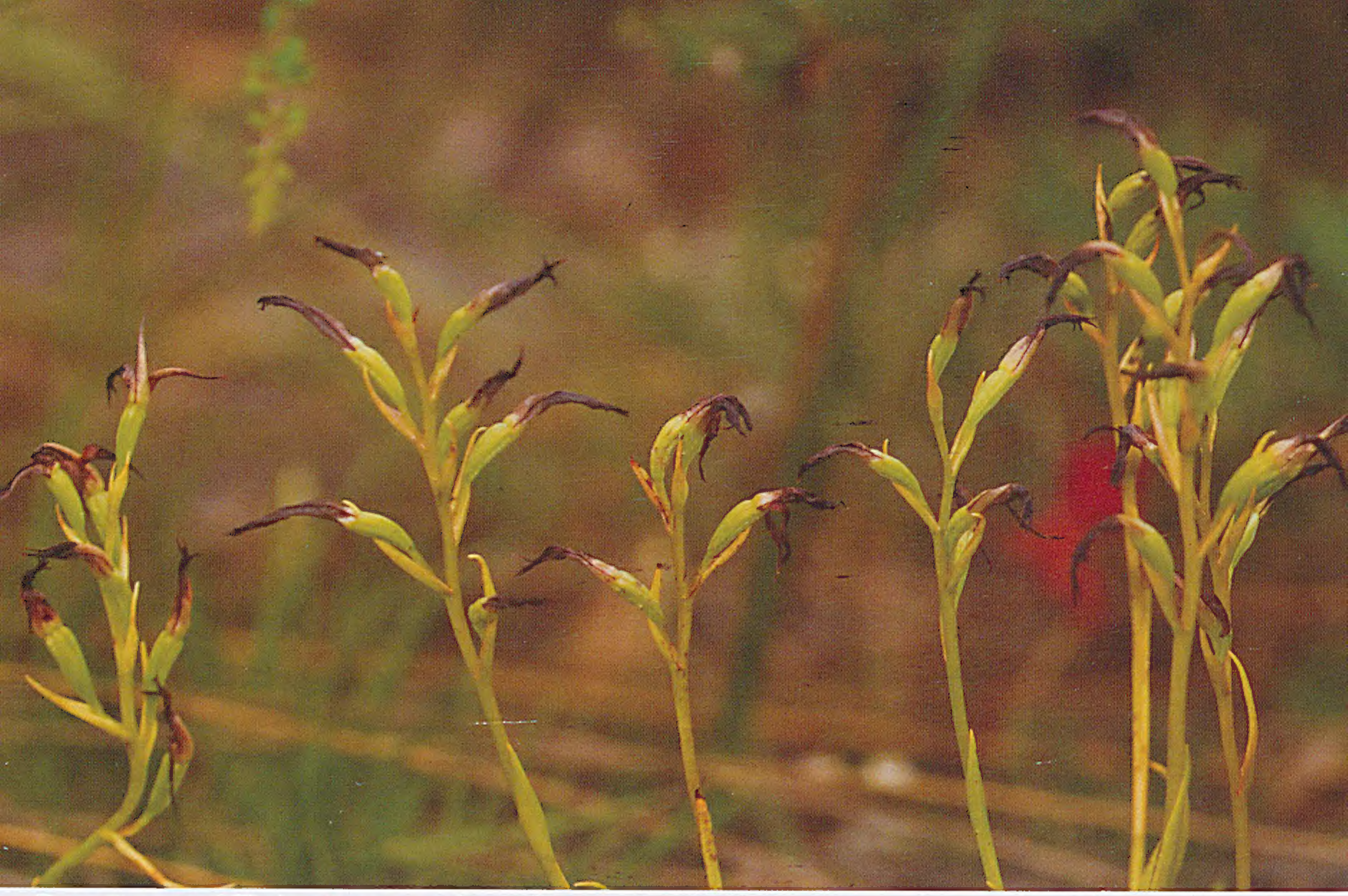
At each site, the group fills out a report form with precise co-ordinates of the location, information on the number of flowering, vegetative and fruiting plants, associated species (if known), habitat details, and threats observed. Digital images are taken of the site, of each orchid plant (to aid confirmation of identification) and any threats that are observed. All sites are surveyed and reported, regardless of success or failure in locating the orchid. The information is sent to the WANOSCG



Caladenia dundasiae. Photo Andrew Brown.



The typical open Wandoo habitat of *Caladenia dundasiae*. Photo David Lawson.



Recruitment of *Thelymitra magnifica* is likely to be very low as there appears to be little natural seed set. None of the flowers in this group of plants produced viable seed. Photo Jay and Bob Steer.

Inappropriate recreational use of bush reserves by bicycle and off-road motorcycle riders degrades *Thelymitra magnifica* habitat. Photo Jay and Bob Steer.

co-ordinator, who then forwards it to the DBCA co-ordinator for distribution to the DBCA staff and entry in the Threatened and Priority Flora database. The DBCA staff review the information and implement recovery actions where possible.

When the project began in 2011, there were 21 participants in 10 ADORP groups covering 11 priority flora species. At last count, there are 58 participants in 26 groups covering 30 priority orchid species between Kalbarri in the north of the Region to Esperance in the south-east. Over 120 priority orchid populations have been regularly monitored and a number of new populations have been located. As a result of this information, some priority orchid species are now known to be more common than previously thought and their conservation appears assured. Other priority orchid species were found to be genuinely rare and highly threatened and several of these have now been formally listed as threatened flora.

I have included here examples of two priority orchids covered by the project – *Caladenia dundasiae* and *Thelymitra magnifica*.

Caladenia dundasiae

The Dundas' spider orchid is a rare, geographically restricted species which was discovered by botanical artist Pat Dundas in the Watheroo area in 1995, and subsequently named by Stephen Hopper and Andrew Brown in 2001. It flowers between late July and mid August, producing one or two red, deep pink or, more rarely, cream flowers to 8 cm across, each with long, narrow spreading to pendulous petals and sepals and a small red or pink, white-marked labellum with serrate fringe segments and two rows of red-tipped calli. It is one of 44 species in the *C. filamentosa* complex in Western Australia, which are characterised by their usually long, often pendulous petals and sepals and broad labellum. Most species have two well-spaced rows of lamina calli, and short serrate or dentate marginal calli.

It is considered most closely related to *C. filifera*, from which it is distinguished by its more stiffly held flowers, generally shorter petals and sepals, labellum with a cream rather than red base and calli which extend further towards the labellum apex.

Listed as Priority 1, it is confined to a relatively small geographic area between Watheroo and Moora, growing in open Wandoo (*Eucalyptus wandoo*) and York Gum (*E. loxophleba*) woodland. It has been part of ADORP since 2011 with intensive monitoring of all sites undertaken since 2014.

In August 2017 the three known sites were monitored, and when combined yielded 592 flowering plants, a 52% decrease in numbers compared to the 1133 flowering plants seen when first fully monitored in 2014. In 2015 just 213 flowering plants were found and in 2016, 1680 flowering plants were found. This fluctuation appears directly attributed to the presence of good early season (April-May) rainfall, with 2014 and 2016 having good rainfall, and 2015 and 2017 having much lower rainfall. During the four years of intensive survey no new populations have been located. Two of the three known populations are on private land, one of these very small, and one population is in a reserve.

Current and potential future threats to survival include wood collection, off-road vehicles and trail bikes, trampling of habitat by groups of over-eager orchid enthusiasts, weeds and grazing from native animals. One private property population has very low numbers of the orchid, with 11 flowering plants seen in 2017.

The period of monitoring undertaken is too short to ascertain long term trends but indicates the species is safe, at least in the short term. Some 188 flowering plants were located in the reserve population in 2017, with few major threats noted. Although off-road vehicles and trail bikes may potentially become a greater threat in the future, they are currently entering a small section of the reserve, and habitat elsewhere in the reserve is largely in good condition. As the location of the orchid becomes better known, trampling of habitat by orchid enthusiasts may become a greater threat. The largest population comprising 384 flowering plants on private property has been fenced, and No Entry signs erected. Apart from some weeds and minor grazing by native animals, this population is healthy.

Thelymitra magnifica

The Crystal Brook star orchid is a rare, highly restricted species named by Jeff Jeanes in 2006 from specimens he collected at Crystal Brook in October 2000. The name *magnifica* (noble, eminent, stately, splendid) alludes to the up to ten strikingly beautiful bright orange, brown and yellow, highly scented flowers, 3–6 cm across, which appear between late September and mid-October. It is one of seven species in the *T. fuscolutea* complex in Western Australia, characterised by yellow to orange-brown flowers (with or without blotches), and broad flattened leaves that are often found in clumps.

It is considered most closely related to *T. stellata*, from which it may be distinguished by its slightly larger, more open flowers, more pronounced apical projection to the column and different colouration. In areas where the two species occur near one another, *T. magnifica* has an earlier flowering period, and a preference for granitic rather than lateritic soils.

Listed as Priority 1, it is confined to a small geographic area along the western edge of the Darling Scarp east of Perth, growing in dense heath in the vicinity of Wandoo (*E. wandoo*), often below granite outcrops or on sloping granitic soils. It has been actively surveyed and monitored for seven flowering seasons,

In September–October 2017, ten sites were monitored. Six sites, when combined, yielded 50 flowering plants, a marked decrease compared to the 76 seen when monitoring commenced in 2011. As seven flowering plants were seen at sub-locations not monitored in 2011, this is a 43% reduction in the number of plants flowering at locations previously surveyed. Across all sites, 47 vegetative leaves were recorded in 2017, a 28% reduction compared to 2016, and a 50% reduction compared to 2015. Interestingly while three of the four biggest populations saw a 50% or more reduction in the number of flowering plants, the fourth population produced 25% more flowering plants and vegetative leaves in 2017. Only three plants are known to have set seed in the period 2011 to 2017, including one plant in 2017.

Recruitment of new plants in known sites is unknown. However, based on the data collected between 2011 and 2017, recruitment is likely to be low since there appears to be little natural seed set. Failure to set seed may be due to loss of pollinators, flower/fruit predation by insects, changed climatic conditions or a combination of these and other factors.

All sites are under threat due to their close proximity to the Perth Metropolitan area. People and orchids often have conflicting needs. Much of the former habitat in the Darling Range has been lost to quarries and residential development, and a variety of human activities threaten existing sites. Clearing and unplanned fires (particularly arson) close to known sites have increased the likelihood of weed infestation. Fuel reduction burns during winter and early spring, at a time that is safest to nearby residential areas, coincides with the growing, flowering and seed set of the species, and are likely to be detrimental to its survival. Inappropriate recreational use of bush reserves, including track construction and soil erosion caused by off-road vehicles (bicycles, motorbikes and cars), also impacts on orchid habitat. Grazing by rabbits and kangaroos is also a problem. Over-visitation by orchid enthusiasts is becoming an increasing problem due to trampling of associated vegetation and pruning of protective native plants to get a better photograph.

In normal seasons the leaves emerge in May and have obtained about three quarters of their final size by the end of June. Whether the extremely dry June of 2017 was the cause of the dramatic reduction in the number of leaves and flowering plants in that year remains to be confirmed.

These negative environmental factors, together with the trend towards a drier climate, suggest that this magnificent orchid may struggle to survive if its remaining habitat is not closely managed.

Summary

The ADORP project is proving to be a very important source of data on otherwise poorly known orchid species. It enables the DBCA to better understand their conservation status and undertake any corrective or recovery actions as appropriate. For the participants, the experience has been fun and rewarding, by seeing rare orchids in the wild and working as a team with other dedicated orchid enthusiasts and conservationists. This collaborative program is immensely valuable, enabling the public to make significant contributions to conservation efforts in partnership with government, which ultimately benefits the entire community.

Andrew Brown is a conservation biologist and taxonomist associated with the Western Australian Herbarium. He is author or co-author of many books and journal publications.

Acknowledgements

I would like to thank Kim Hanson, the WANOSCG co-ordinator and an instigator of ADORP, and the ADORP volunteers who have put their valuable time and energy. Special thanks to David Lawson and Jay and Bob Steer who provided monitoring information on *C. dundasiae* and *T. magnifica*, and the majority of photographs.

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The ANOS Website - Databases and Registered Hybrid Lists

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Four informational databases are provided on the ANOS website for public interrogation, these being:

1. All national ANOS awards to date
2. Registered Australian native orchid hybrids
3. Registered *Dendrobium* orchid hybrids
4. Archival index to *Orchadian* articles

The purpose of this article is to give to prospective users a brief introduction to using each.

1. All national ANOS awards to date

This website data presently contains all 303 national awards, and is regularly updated on advice from the National Registrar of Judges.

Access is provided from the Judging web page. When 'select to view' is invoked, the initial page (Figure 1) lists recent awards in reverse chronological sequence, most recent award on top of the selection list.

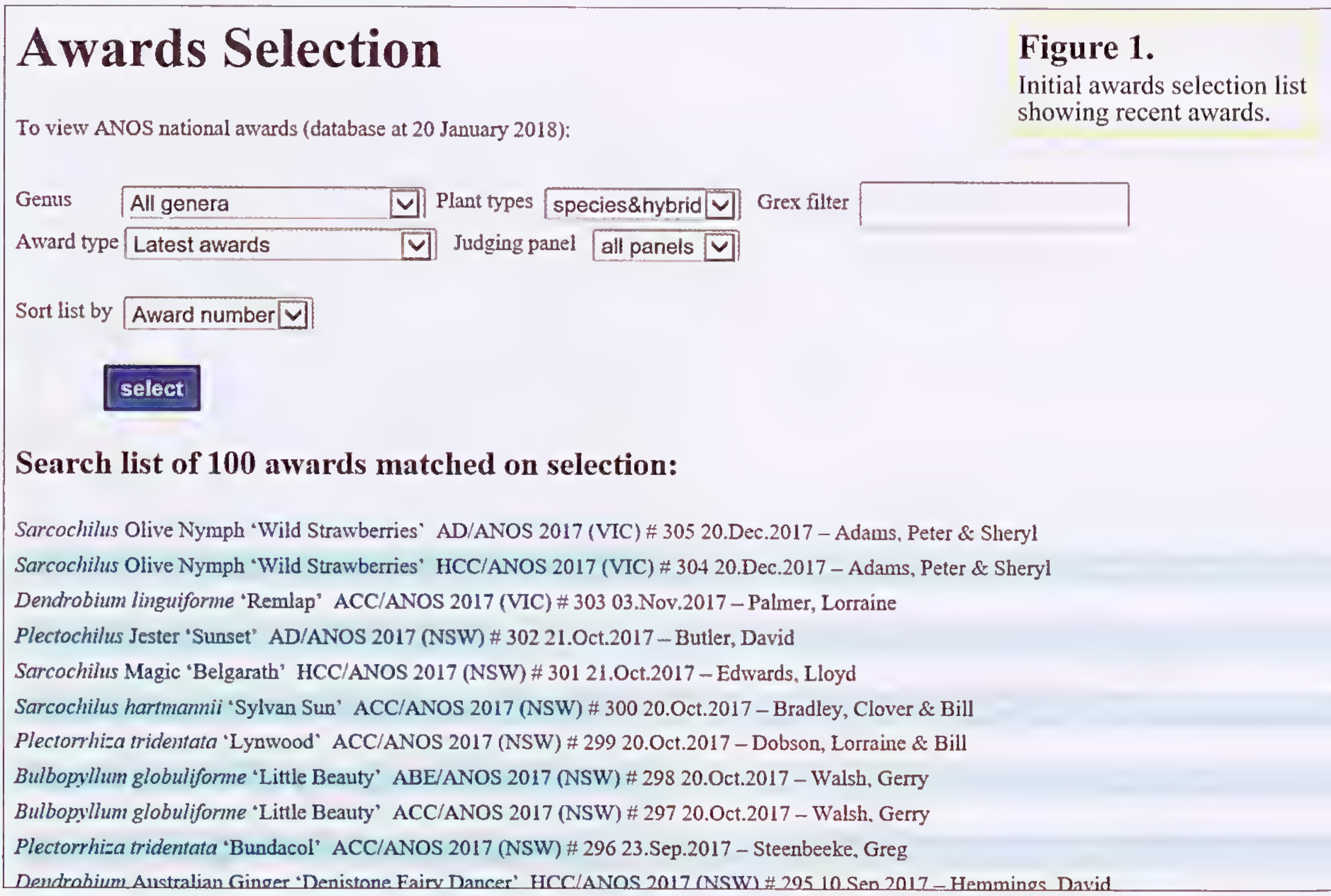
Individual awards of interest can be selected to get a display of all details recorded, including several photo images of the award (Figure 3).

Alternatively the options at the top of the selection list screen provide for various alternative lists to be displayed, from which individual awards can be selected for detailed viewing. With the exception of 'Grex filter' these options are drop down selections.

The 'Grex filter' is for advanced listings, type the first few characters of the grex name to include only matching grex names. As an example of its use, to list all *Dendrobium speciosum* var. *curvicaule* quality awards by plant name, refer to figure 2.

The Award display page (Figure 3) shows the awarded detailed average points, as well as flower measurements and flower count. Up to four small thumbnail images are displayed, and these, when selected (curser over usually with a PC), will display a larger image at the top right area of the page.

For hybrid awards cultivar breeding details will be shown for more recent awards, and the link 'SELECT to view hybrid details', is offered to link directly to the registered hybrid database records.



Awards Selection

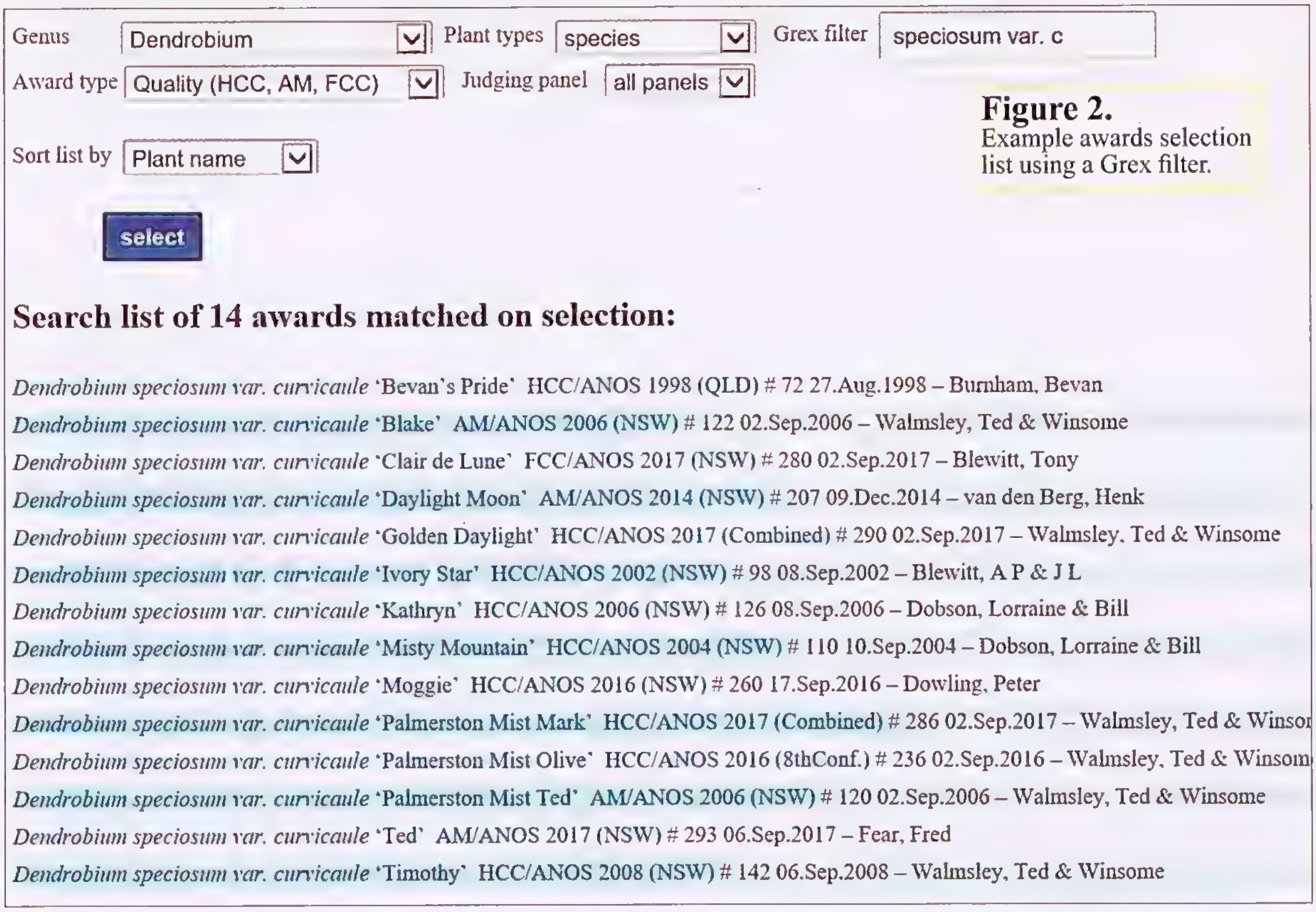
To view ANOS national awards (database at 20 January 2018):

Genus: All genera
Plant types: species&hybrid
Grex filter:
Award type: Latest awards
Judging panel: all panels
Sort list by: Award number

Search list of 100 awards matched on selection:

Sarcochilus Olive Nymph 'Wild Strawberries' AD/ANOS 2017 (VIC) # 305 20.Dec.2017 – Adams, Peter & Sheryl
Sarcochilus Olive Nymph 'Wild Strawberries' HCC/ANOS 2017 (VIC) # 304 20.Dec.2017 – Adams, Peter & Sheryl
Dendrobium linguiforme 'Remlap' ACC/ANOS 2017 (VIC) # 303 03.Nov.2017 – Palmer, Lorraine
Plectochilus Jester 'Sunset' AD/ANOS 2017 (NSW) # 302 21.Oct.2017 – Butler, David
Sarcochilus Magic 'Belgarath' HCC/ANOS 2017 (NSW) # 301 21.Oct.2017 – Edwards, Lloyd
Sarcochilus hartmannii 'Sylvan Sun' ACC/ANOS 2017 (NSW) # 300 20.Oct.2017 – Bradley, Clover & Bill
Plectorrhiza tridentata 'Lynwood' ACC/ANOS 2017 (NSW) # 299 20.Oct.2017 – Dobson, Lorraine & Bill
Bulbopyllum globuliforme 'Little Beauty' ABE/ANOS 2017 (NSW) # 298 20.Oct.2017 – Walsh, Gerry
Bulbopyllum globuliforme 'Little Beauty' ACC/ANOS 2017 (NSW) # 297 20.Oct.2017 – Walsh, Gerry
Plectorrhiza tridentata 'Bundacol' ACC/ANOS 2017 (NSW) # 296 23.Sep.2017 – Steenbeeke, Greg
Dendrobium Australian Ginger 'Denistone Fairy Dancer' HCC/ANOS 2017 (NSW) # 295 10.Sep.2017 – Hemmings, David

Figure 1. Initial awards selection list showing recent awards.

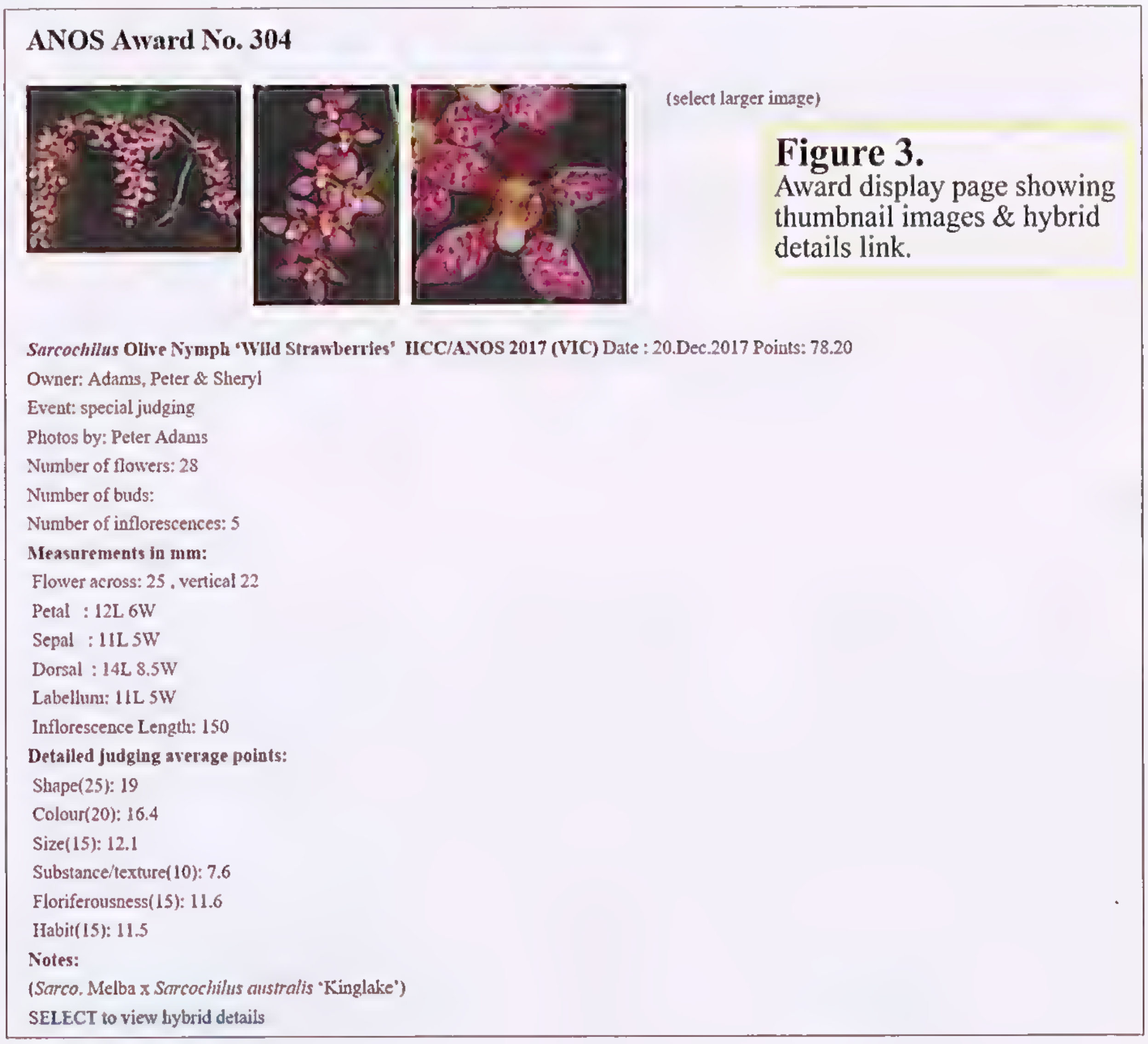


Genus: Dendrobium
Plant types: species
Grex filter: speciosum var. c
Award type: Quality (HCC, AM, FCC)
Judging panel: all panels
Sort list by: Plant name

Figure 2. Example awards selection list using a Grex filter.

Search list of 14 awards matched on selection:

Dendrobium speciosum var. curvicaule 'Bevan's Pride' HCC/ANOS 1998 (QLD) # 72 27.Aug.1998 – Burnham, Bevan
Dendrobium speciosum var. curvicaule 'Blake' AM/ANOS 2006 (NSW) # 122 02.Sep.2006 – Walmsley, Ted & Winsome
Dendrobium speciosum var. curvicaule 'Clair de Lune' FCC/ANOS 2017 (NSW) # 280 02.Sep.2017 – Blewitt, Tony
Dendrobium speciosum var. curvicaule 'Daylight Moon' AM/ANOS 2014 (NSW) # 207 09.Dec.2014 – van den Berg, Henk
Dendrobium speciosum var. curvicaule 'Golden Daylight' HCC/ANOS 2017 (Combined) # 290 02.Sep.2017 – Walmsley, Ted & Winsome
Dendrobium speciosum var. curvicaule 'Ivory Star' HCC/ANOS 2002 (NSW) # 98 08.Sep.2002 – Blewitt, A P & J L
Dendrobium speciosum var. curvicaule 'Kathryn' HCC/ANOS 2006 (NSW) # 126 08.Sep.2006 – Dobson, Lorraine & Bill
Dendrobium speciosum var. curvicaule 'Misty Mountain' HCC/ANOS 2004 (NSW) # 110 10.Sep.2004 – Dobson, Lorraine & Bill
Dendrobium speciosum var. curvicaule 'Moggie' HCC/ANOS 2016 (NSW) # 260 17.Sep.2016 – Dowling, Peter
Dendrobium speciosum var. curvicaule 'Palmerston Mist Mark' HCC/ANOS 2017 (Combined) # 286 02.Sep.2017 – Walmsley, Ted & Winsor
Dendrobium speciosum var. curvicaule 'Palmerston Mist Olive' HCC/ANOS 2016 (8thConf.) # 236 02.Sep.2016 – Walmsley, Ted & Winsom
Dendrobium speciosum var. curvicaule 'Palmerston Mist Ted' AM/ANOS 2006 (NSW) # 120 02.Sep.2006 – Walmsley, Ted & Winsome
Dendrobium speciosum var. curvicaule 'Ted' AM/ANOS 2017 (NSW) # 293 06.Sep.2017 – Fear, Fred
Dendrobium speciosum var. curvicaule 'Timothy' HCC/ANOS 2008 (NSW) # 142 06.Sep.2008 – Walmsley, Ted & Winsome



ANOS Award No. 304

Figure 3. Award display page showing thumbnail images & hybrid details link.

***Sarcochilus* Olive Nymph 'Wild Strawberries' HCC/ANOS 2017 (VIC)** Date : 20.Dec.2017 Points: 78.20
Owner: Adams, Peter & Sheryl
Event: special judging
Photos by: Peter Adams
Number of flowers: 28
Number of buds:
Number of inflorescences: 5
Measurements in mm:
Flower across: 25 , vertical 22
Petal : 12L 6W
Sepal : 11L 5W
Dorsal : 14L 8.5W
Labellum: 11L 5W
Inflorescence Length: 150
Detailed judging average points:
Shape(25): 19
Colour(20): 16.4
Size(15): 12.1
Substance/texture(10): 7.6
Floriferousness(15): 11.6
Habit(15): 11.5
Notes:
(*Sarco.* Melba x *Sarcochilus australis* 'Kinglake')
SELECT to view hybrid details

2. Registered Australian native orchid hybrids

At present the database comprises of 2,856 hybrid orchids and parent species records.

Access to these records is from the Judging page, and the first display is a selection list of the latest one hundred RHS hybrid registrations of Australian native orchids (Figure 4.). A revised selection list can be displayed using the options at the top of the display which can give a particular genus, filtered if desired by Grex/species name (a few beginning characters is available).

Another approach to producing a selection list is to use the 'OR show list' drop down options, being:

- List latest hybrids for a genus
- List species with used count
- List species, sort by used count
- List earliest hybrids for all genera
- List earliest hybrids for a genus
- List top registrants by name
- List all registrants by name

An example of 'List species, sort by used count' is given in Figure 5. When selected, the species names link to a display where the hybrid progeny can be listed and each hybrid interrogated as desired.

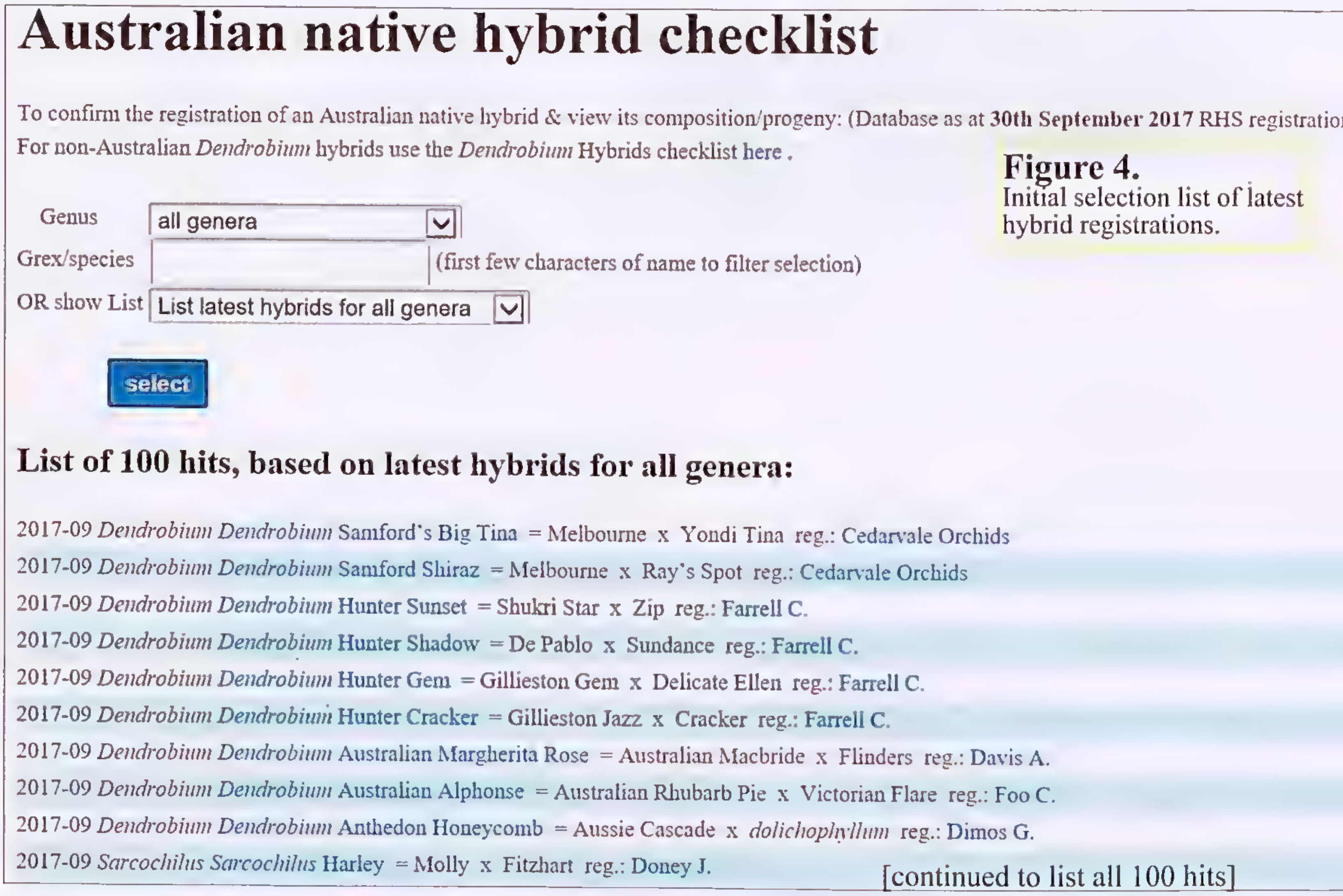
The core hybrid detail display format is shown by Figure 6. Apart from access from the selection lists, this display is also available from links in award displays, or by directly entering the full grex name. In this case *Sarcochilus* was the selected genus and "Bobby-Dazzler" directly entered in the Grex/ species name option.

Where a hybrid or species has been used in breeding the number of registered hybrid progeny will be displayed, and selecting this information will give a list of these hybrid offspring for interrogation. This functionallity is the online equivalent of the 'Cross Reference List' in the *A Checklist of Australian Native Orchid Hybrids*' published by ANOS.

The hybrid detail display gives the species percentage composition summary and the detailed breeding composition is shown and can be used to check the computer calculated species composition summary by those not time poor.

Also available on the detail display is a link to a list of all the hybrid registrations for the registrant.

The species listed in the percentage composition summary can be selected to access species details including a link to the Plants of the World Online Portal- RBG, Kew. Select the POWOP result for distribution, synonyms, bibliography…



Australian native hybrid checklist

To confirm the registration of an Australian native hybrid & view its composition/progeny: (Database as at **30th September 2017** RHS registratio

For non-Australian *Dendrobium* hybrids use the *Dendrobium* Hybrids checklist here .

Genus: all genera

Grex/species: (first few characters of name to filter selection)

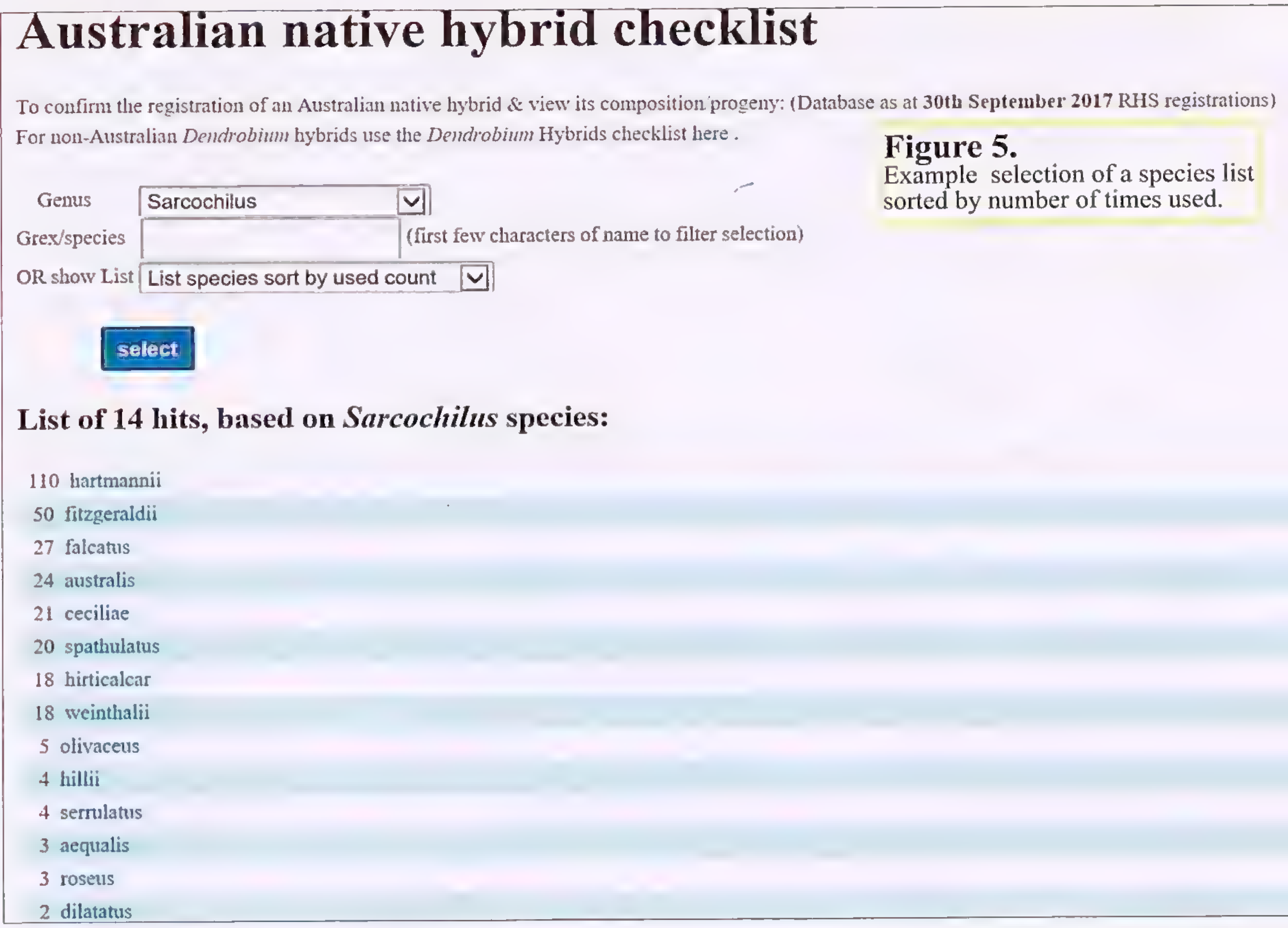
OR show List: List latest hybrids for all genera

List of 100 hits, based on latest hybrids for all genera:

2017-09 *Dendrobium Dendrobium* Samford's Big Tina = Melbourne x Yondi Tina reg.: Cedarvale Orchids
2017-09 *Dendrobium Dendrobium* Samford Shiraz = Melbourne x Ray's Spot reg.: Cedarvale Orchids
2017-09 *Dendrobium Dendrobium* Hunter Sunset = Shukri Star x Zip reg.: Farrell C.
2017-09 *Dendrobium Dendrobium* Hunter Shadow = De Pablo x Sundance reg.: Farrell C.
2017-09 *Dendrobium Dendrobium* Hunter Gem = Gillieston Gem x Delicate Ellen reg.: Farrell C.
2017-09 *Dendrobium Dendrobium* Hunter Cracker = Gillieston Jazz x Cracker reg.: Farrell C.
2017-09 *Dendrobium Dendrobium* Australian Margherita Rose = Australian Macbride x Flinders reg.: Davis A.
2017-09 *Dendrobium Dendrobium* Australian Alphonse = Australian Rhubarb Pie x Victorian Flare reg.: Foo C.
2017-09 *Dendrobium Dendrobium* Anthedon Honeycomb = Aussie Cascade x *dolichophyllum* reg.: Dimos G.
2017-09 *Sarcochilus Sarcochilus* Harley = Molly x Fitzhart reg.: Doney J.

Figure 4.
Initial selection list of latest hybrid registrations.

[continued to list all 100 hits]



Australian native hybrid checklist

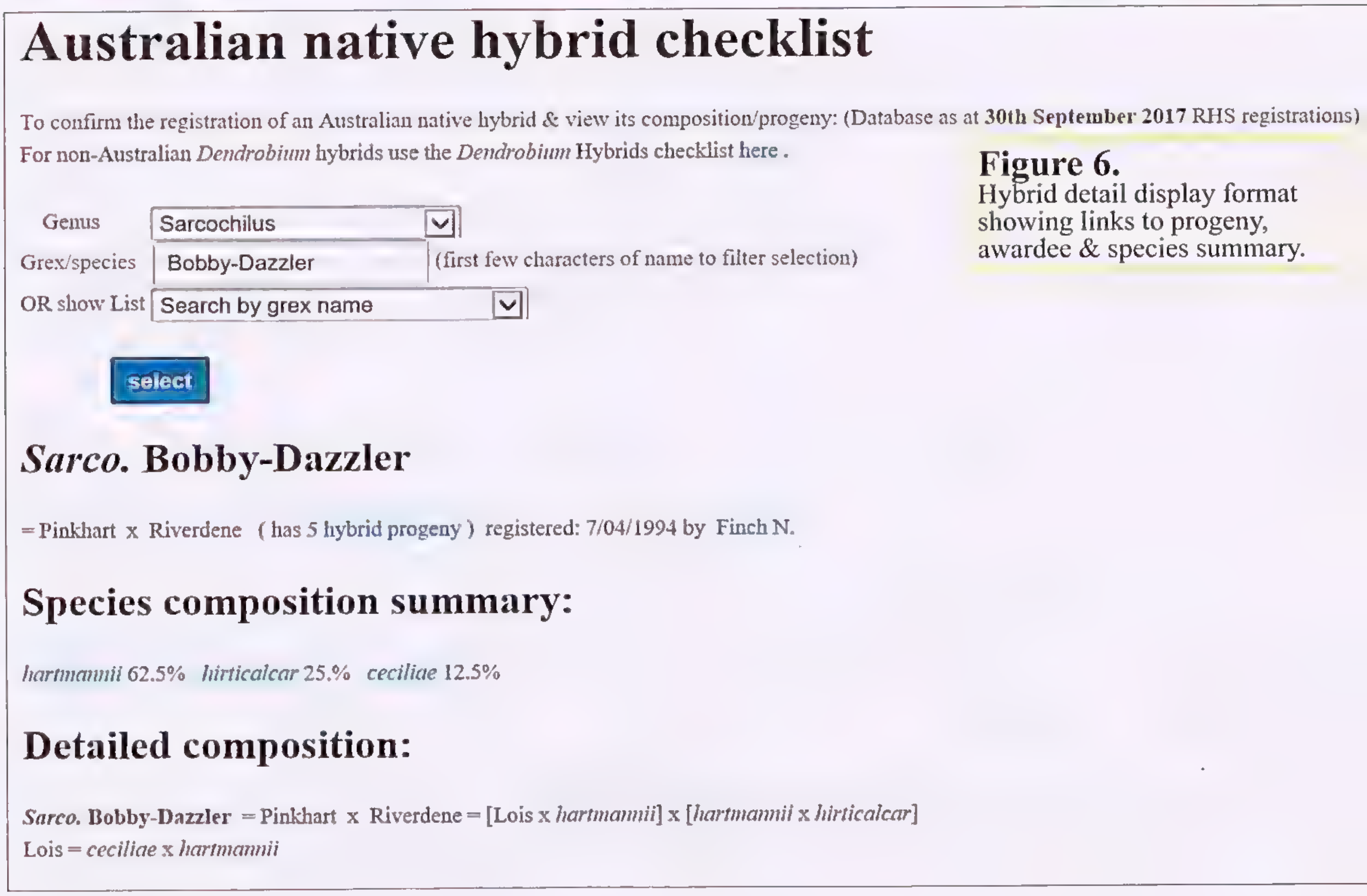
To confirm the registration of an Australian native hybrid & view its composition/progeny: (Database as at **30th September 2017** RHS registrations)
For non-Australian *Dendrobium* hybrids use the *Dendrobium* Hybrids checklist here .

Genus: Sarcochilus
Grex/species: (first few characters of name to filter selection)
OR show List: List species sort by used count

List of 14 hits, based on *Sarcochilus* species:

110	hartmannii
50	fitzgeraldii
27	falcatus
24	australis
21	ceciliae
20	spathulatus
18	hirticalcar
18	weinthalii
5	olivaceus
4	hillii
4	serrulatus
3	aequalis
3	roseus
2	dilatatus

Figure 5.
Example selection of a species list sorted by number of times used.



Australian native hybrid checklist

To confirm the registration of an Australian native hybrid & view its composition/progeny: (Database as at **30th September 2017** RHS registrations)
For non-Australian *Dendrobium* hybrids use the *Dendrobium* Hybrids checklist here .

Genus: Sarcochilus
Grex/species: Bobby-Dazzler (first few characters of name to filter selection)
OR show List: Search by grex name

Sarco. Bobby-Dazzler

= Pinkhart x Riverdene (has 5 hybrid progeny) registered: 7/04/1994 by Finch N.

Species composition summary:

hartmannii 62.5% *hirticalcar* 25.% *ceciliae* 12.5%

Detailed composition:

***Sarco.* Bobby-Dazzler** = Pinkhart x Riverdene = [Lois x *hartmannii*] x [*hartmannii* x *hirticalcar*]
Lois = *ceciliae* x *hartmannii*

Figure 6.
Hybrid detail display format showing links to progeny, awardee & species summary.

3. Registered *Dendrobium* orchid hybrids

Online functions works in a like manner to the Registered Australian native orchid hybrids displays, excepting that genus is always *Dendrobium* and not seen as an option.

The detailed hybrid display (Figure 7) shows the ANOS judging segment which can be: Australian, Australasian or ANOS Exotic (not ANOS judged).

The size of the database requires selection lists to be restricted to one thousand rows. The complexity of some hybrids is significant with the most complex having seventeen generations in their makeup and sometimes ten or more species. Overall 261 species are presently being used to produce 12,901 registered *Dendrobium* hybrid orchids, registered by 2,029 registrants.

The selection list options include 'List species, group by Section' and date range selections of early hybrids, beginning with the years 1864 - 1939.

4. Archival index to *Orchadian* articles

Access to this index is from the Journal page, and the first display is the latest 5 years of articles in reverse chronological order (Figure 8).

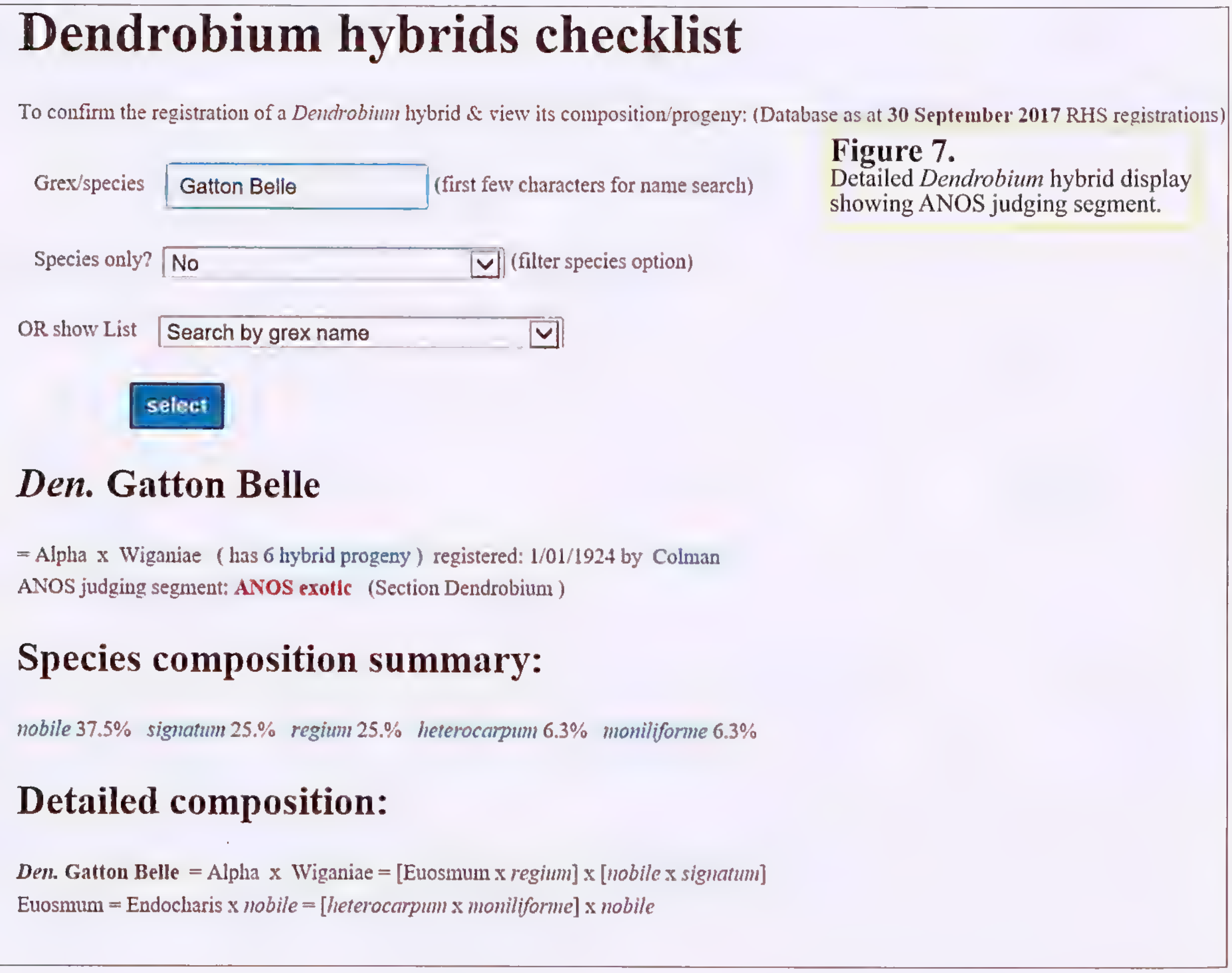
The index is still a work in progress with the last twenty years available presently.

Selection options can be taken to show various lists. An example is a list or articles that have been tagged *Sarcochilis,* sorted by author (Figure 9).

A few more recent articles have been linked to provide for all or part of the article to be viewable when selected. This is aimed at giving potential subscribers to the journal a taste of its content.

Technical

The databases are held in MySQL, functionality has been programmed in PHP, and the website is provided by the Wordpress Content Management System.



Dendrobium hybrids checklist

To confirm the registration of a *Dendrobium* hybrid & view its composition/progeny: (Database as at **30 September 2017** RHS registrations)

Grex/species Gatton Belle (first few characters for name search)

Species only? No (filter species option)

OR show List Search by grex name

Den. Gatton Belle

= Alpha x Wiganiae (has 6 hybrid progeny) registered: 1/01/1924 by Colman
ANOS judging segment: **ANOS exotic** (Section Dendrobium)

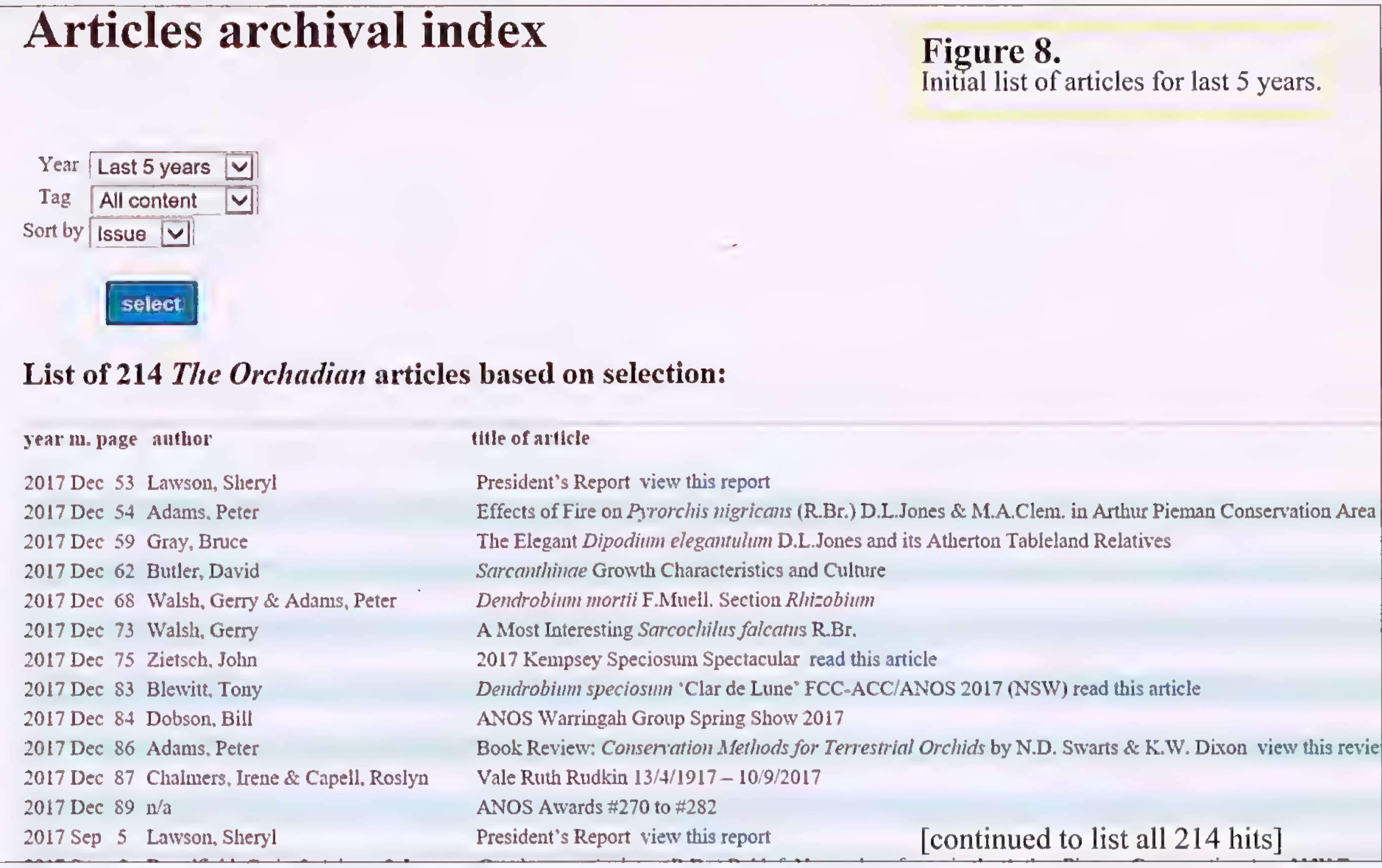
Species composition summary:

nobile 37.5% *signatum* 25.% *regium* 25.% *heterocarpum* 6.3% *moniliforme* 6.3%

Detailed composition:

***Den.* Gatton Belle** = Alpha x Wiganiae = [Euosmum x *regium*] x [*nobile* x *signatum*]
Euosmum = Endocharis x *nobile* = [*heterocarpum* x *moniliforme*] x *nobile*

Figure 7.
Detailed *Dendrobium* hybrid display showing ANOS judging segment.



Articles archival index

Figure 8.
Initial list of articles for last 5 years.

Year: Last 5 years
Tag: All content
Sort by: Issue

List of 214 *The Orchadian* articles based on selection:

year m. page	author	title of article
2017 Dec 53	Lawson, Sheryl	President's Report view this report
2017 Dec 54	Adams, Peter	Effects of Fire on *Pyrorchis nigricans* (R.Br.) D.L.Jones & M.A.Clem. in Arthur Pieman Conservation Area
2017 Dec 59	Gray, Bruce	The Elegant *Dipodium elegantulum* D.L.Jones and its Atherton Tableland Relatives
2017 Dec 62	Butler, David	*Sarcanthinae* Growth Characteristics and Culture
2017 Dec 68	Walsh, Gerry & Adams, Peter	*Dendrobium mortii* F.Muell. Section *Rhizobium*
2017 Dec 73	Walsh, Gerry	A Most Interesting *Sarcochilus falcatus* R.Br.
2017 Dec 75	Zietsch, John	2017 Kempsey Speciosum Spectacular read this article
2017 Dec 83	Blewitt, Tony	*Dendrobium speciosum* 'Clar de Lune' FCC-ACC/ANOS 2017 (NSW) read this article
2017 Dec 84	Dobson, Bill	ANOS Warringah Group Spring Show 2017
2017 Dec 86	Adams, Peter	Book Review: *Conservation Methods for Terrestrial Orchids* by N.D. Swarts & K.W. Dixon view this revie
2017 Dec 87	Chalmers, Irene & Capell, Roslyn	Vale Ruth Rudkin 13/4/1917 – 10/9/2017
2017 Dec 89	n/a	ANOS Awards #270 to #282
2017 Sep 5	Lawson, Sheryl	President's Report view this report

[continued to list all 214 hits]

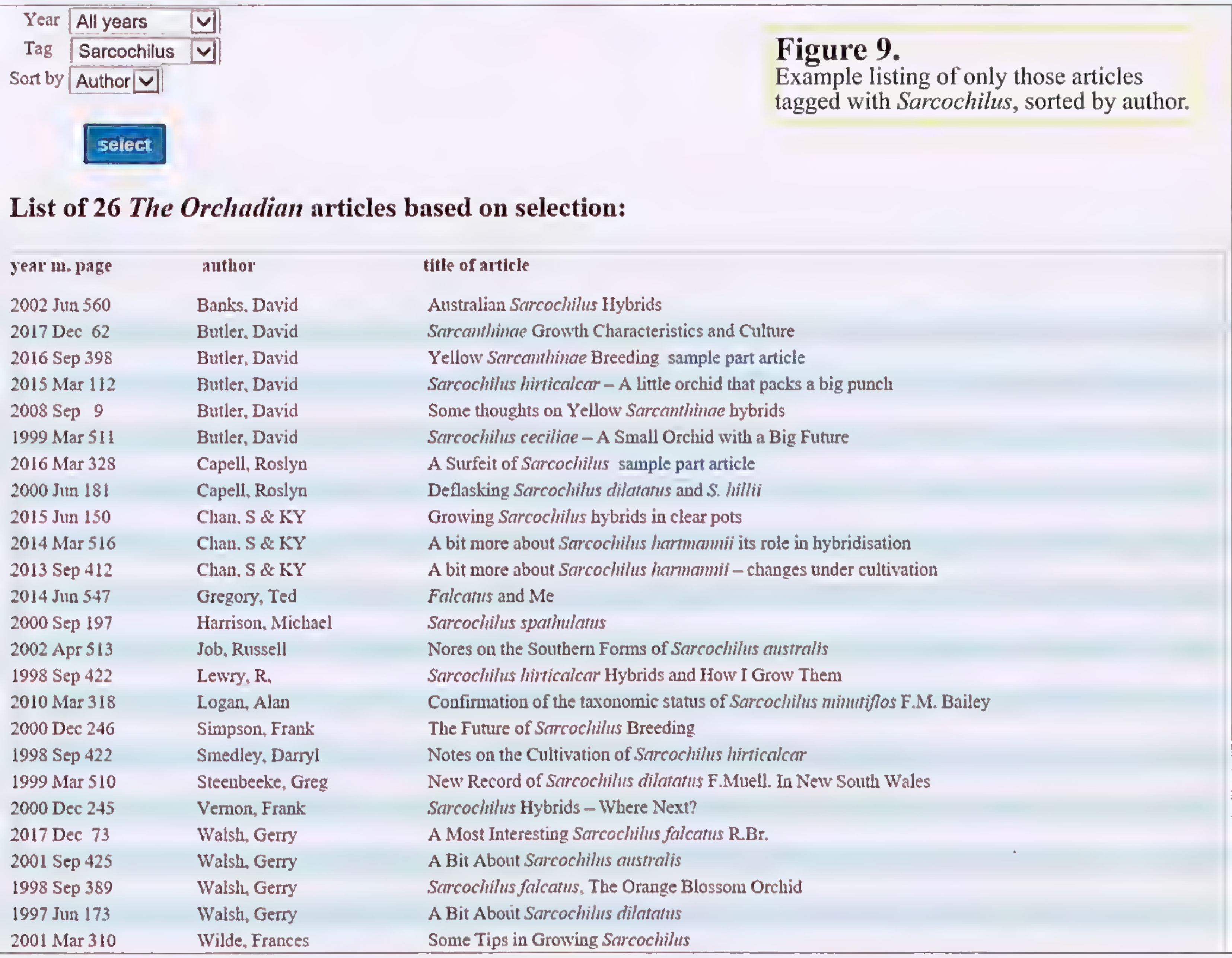


Figure 9.
Example listing of only those articles tagged with *Sarcochilus*, sorted by author.

Year: All years
Tag: Sarcochilus
Sort by: Author

List of 26 *The Orchadian* articles based on selection:

year m. page	author	title of article
2002 Jun 560	Banks, David	Australian *Sarcochilus* Hybrids
2017 Dec 62	Butler, David	*Sarcanthinae* Growth Characteristics and Culture
2016 Sep 398	Butler, David	Yellow *Sarcanthinae* Breeding sample part article
2015 Mar 112	Butler, David	*Sarcochilus hirticalcar* – A little orchid that packs a big punch
2008 Sep 9	Butler, David	Some thoughts on Yellow *Sarcanthinae* hybrids
1999 Mar 511	Butler, David	*Sarcochilus ceciliae* – A Small Orchid with a Big Future
2016 Mar 328	Capell, Roslyn	A Surfeit of *Sarcochilus* sample part article
2000 Jun 181	Capell, Roslyn	Deflasking *Sarcochilus dilatatus* and *S. hillii*
2015 Jun 150	Chan, S & KY	Growing *Sarcochilus* hybrids in clear pots
2014 Mar 516	Chan, S & KY	A bit more about *Sarcochilus hartmannii* its role in hybridisation
2013 Sep 412	Chan, S & KY	A bit more about *Sarcochilus harmannii* – changes under cultivation
2014 Jun 547	Gregory, Ted	*Falcatus* and Me
2000 Sep 197	Harrison, Michael	*Sarcochilus spathulatus*
2002 Apr 513	Job, Russell	Nores on the Southern Forms of *Sarcochilus australis*
1998 Sep 422	Lewry, R.	*Sarcochilus hirticalcar* Hybrids and How I Grow Them
2010 Mar 318	Logan, Alan	Confirmation of the taxonomic status of *Sarcochilus minutiflos* F.M. Bailey
2000 Dec 246	Simpson, Frank	The Future of *Sarcochilus* Breeding
1998 Sep 422	Smedley, Darryl	Notes on the Cultivation of *Sarcochilus hirticalcar*
1999 Mar 510	Steenbeeke, Greg	New Record of *Sarcochilus dilatatus* F.Muell. In New South Wales
2000 Dec 245	Vernon, Frank	*Sarcochilus* Hybrids – Where Next?
2017 Dec 73	Walsh, Gerry	A Most Interesting *Sarcochilus falcatus* R.Br.
2001 Sep 425	Walsh, Gerry	A Bit About *Sarcochilus australis*
1998 Sep 389	Walsh, Gerry	*Sarcochilus falcatus*, The Orange Blossom Orchid
1997 Jun 173	Walsh, Gerry	A Bit About *Sarcochilus dilatatus*
2001 Mar 310	Wilde, Frances	Some Tips in Growing *Sarcochilus*

Dendrobium biface Lindl. – A Source of Striped Hybrids

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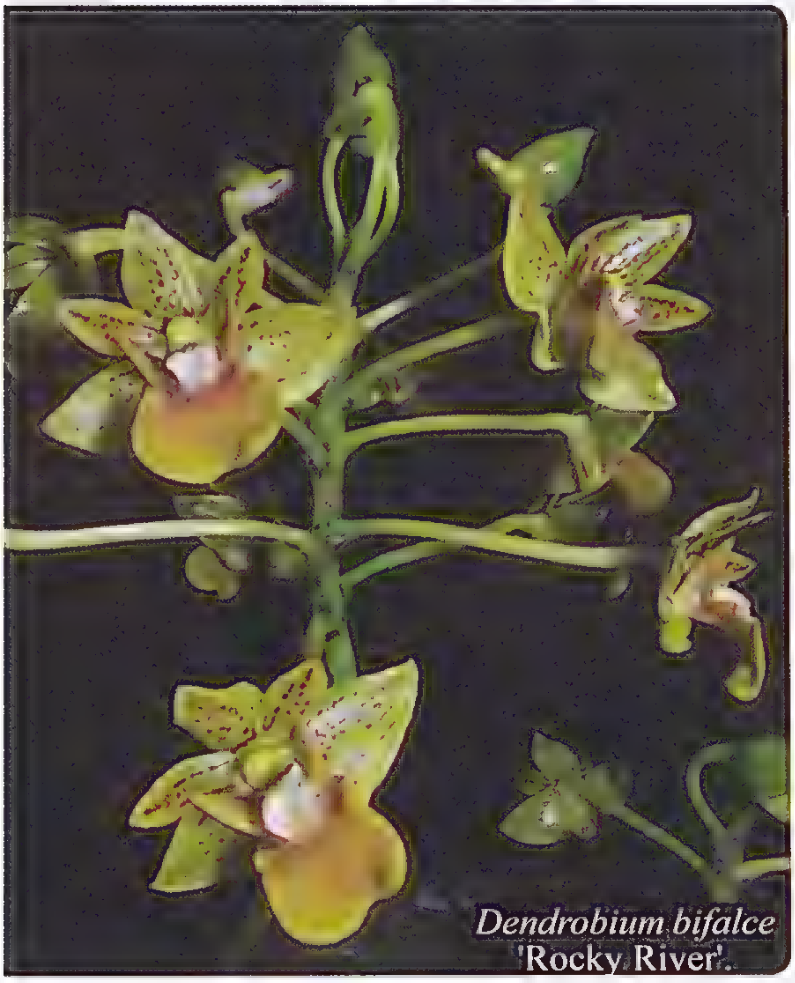
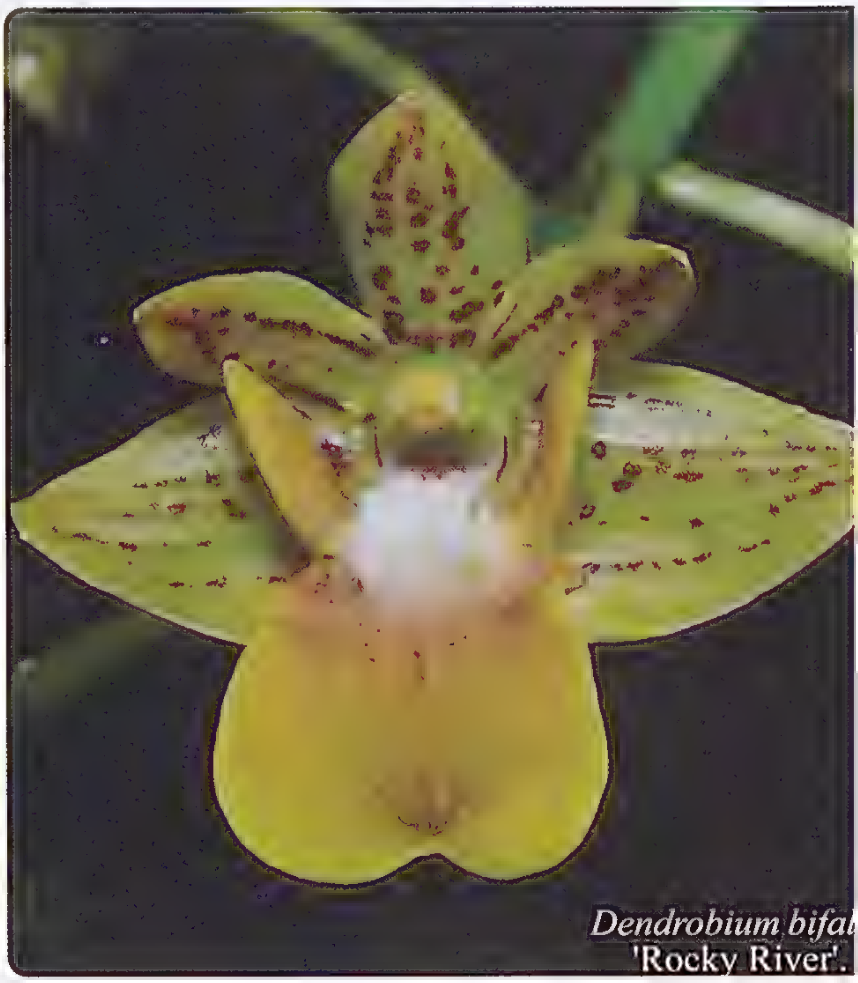
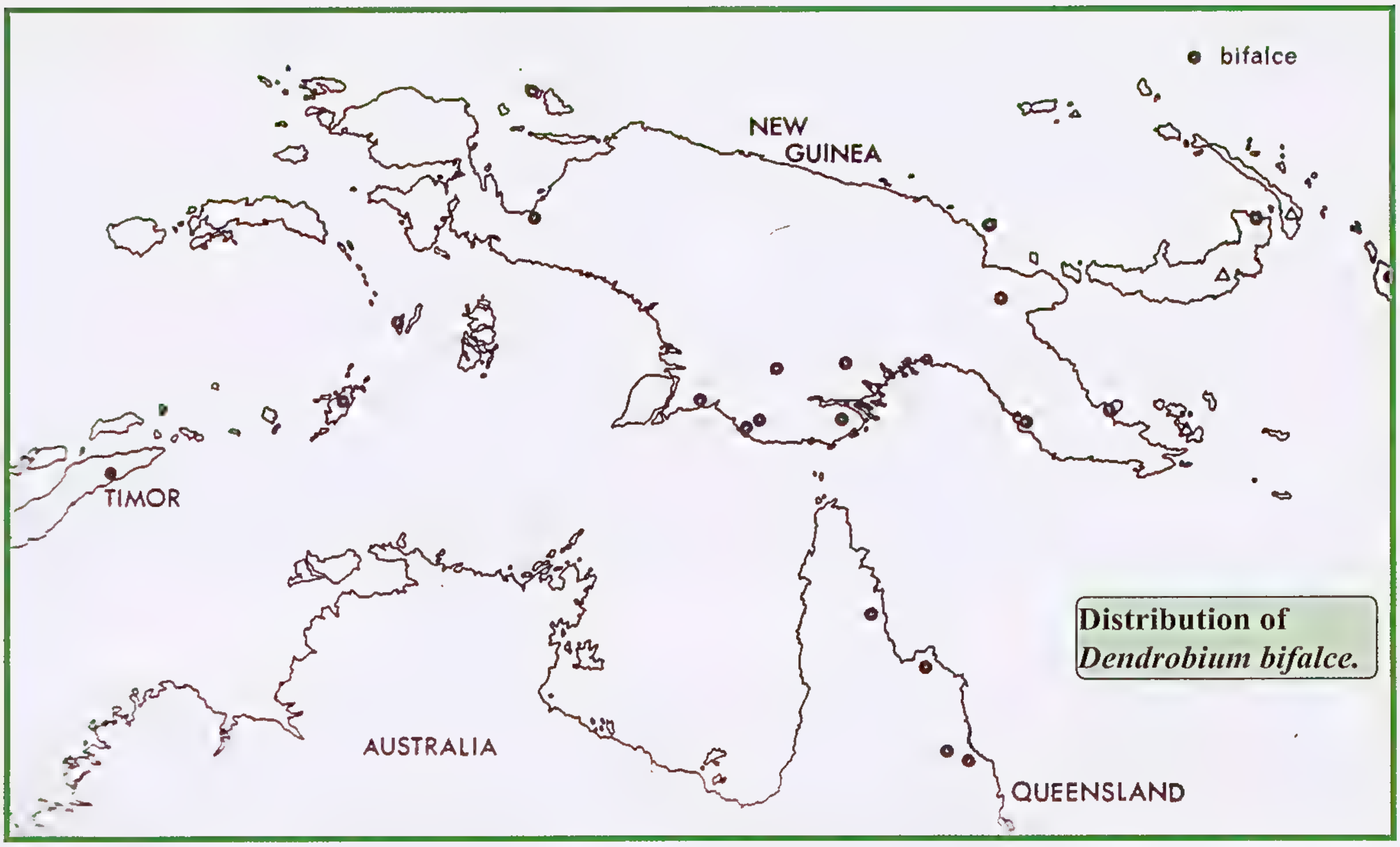
There are approximately 50 species in *Dendrobium* sect. *Latouria*. They are distributed from the Philippines to Samoa, and the centre of distribution is Papua New Guinea, where 45 species are found. There is one species in Australia, *Dendrobium bifalce*. *Latouria* dendrobiums are epiphytic, or occasionally lithophytic, and are predominantly on rainforest trees from sea level to high altitudes, usually in areas of year-round rainfall. The plant size ranges from small to very large, and the long lasting flowers vary considerably in size and shape. The genus *Latouria* was first established in 1850. Miquel transferred it to the genus *Dendrobium* in 1855, placing it in its own section for which he retained the name *Latouria*.

The general characteristics of section *Latouria* include pseudobulbs that are clumped closely together. Although mostly club shaped, they can vary in shape from stout to long and slender. The leaves lack a sheathing base and are borne near the apex of the stem. Inflorescences arise from near the apex, often appearing terminal, and have a few rather fleshy flowers. The labellum is prominently 3–lobed, with a prominent raised callus. Some large flowered species are among the most spectacular in the subtribe and members of the section are becoming popular in cultivation. *Dendrobium bifalce* was named by Lindley in 1843. It has had many synonyms over the years: *Bulbophyllum oncidiochilum* Kraenzl. 1894; *Callista bifalcis* (Lindl.) Kuntze 1891; *Dendrobium breviracemosum* F.M.Bailey 1899; *Dendrobium chloropterum* Rchb.f. & S.Moore 1878; *Doritis bifalcis* (Lindl.) Rchb.f. 1860; *Latourea oncidiochila* (Kraenzl.) Kraenzl. 1894; *Leioanthum bifalce* (Lindl.) M.A.Clem. & D.L.Jones 2002; and *Sayeria bifalcis* (Lindl.) Rauschert 1983.

Cribb (1986) considered that section *Latouria* contains several somewhat disparate groups united by their general habit, fleshy flowers and a raised, fleshy longitudinally grooved callus on the lip. *Dendrobium bifalce* embodies these characteristics - the fleshy and heavy-substanced flowers have a distinct group of white calli that contrast with the greenish-bronze lip. *Dendrobium bifalce* occurs in New Guinea and adjacent islands, Timor, the Solomon Islands and Cape York Peninsula in northern Australia. It is a species of the hot steamy lowlands of open savannahs, open


Dendrobium bifalce
'Rocky River'.


Dendrobium bifal
'Rocky River'.



Distribution of *Dendrobium bifalce.*

rainforests, and coastal areas, almost always below 1000 m, in areas of year-round rainfall and hot temperatures that vary only slightly from the high twenties during the day to low twenties at night. Temperatures are similar from summer to winter. It often grows in situations of high light intensity, even in baking sun on rocks, where plants are often bleached yellowish-green. In Australia it is found in the Torres Strait Islands and in Queensland from Cape York to the Daintree River, at 0–500 m. It is locally common, growing on boulders and trunks and branches of rainforest trees in brightly lit humid situations. The 30–45 cm sympodial plants form large clumps. Pseudobulbs are fusiform, up to 60 cm long and 1–1.5 cm in diameter, with 5–7 nodes below the leaves. Each pseudobulb has 2–4 leaves which are leathery, oblong, sub-erect, and somewhat channelled. The leaves are up to 10 cm long, and clustered at the apex of the pseudobulb. The inflorescences are erect, up to 20 cm long, and arise from apical nodes. Several racemes may be produced by each growth. The flowers are clustered toward the top of the inflorescences, which have a long heavy peduncle and a short rachis.

Dendrobium bifalce can flower throughout the year, but most commonly in autumn and winter. It has 6–10 flowers that open widely. Each flower is about 2 cm across, waxy and long lasting. The petals and sepals are yellow or yellow green to pale green, marked with maroon. Flowers usually have small rows of spots or lines on the petals and sepals. The sepals are much broader than the petals and the bases of the lateral sepals are fused to the column foot. The prominent labellum may be white, fawn coloured or yellowish green to bronze with a yellow to brownish purple mid-lobe and a white callus. The 3–lobed labellum is broad and hinged to the apex of the column foot, and has erect and narrow sidelobes. It is perhaps less showy than others in the *Latouria* section and is one of the smaller flowered species, but the substance of the wide-open flowers, contrasting colours and interesting flower formation are appealing features.

Awards for *D. bifalce* include *D. bifalce* 'Anne' HCC/AOS (1988) and *D. bifalce* 'Wombat' CBM AOC (1994) with 49 flowers.

Hybrids

The first registered hybrid was *D.* Dalvey, registered by the Singapore Botanical Gardens in 1951 as a cross between *D. bifalce* and *D. phalaenopsis* (now a synonym of *D. bigibbum* var. *superbum* Hort. ex Reich.f., in sect. *Phalaenanthe*). *Dendrobium bifalce* was the pod parent. One of the seedlings was named 'Candy Stripes' (illustrated). In shape it displays the wide lateral sepals and lobed lip from *D. bifalce* but the colour of *D. bifalce* is not dominant. The appearance of stripes encouraged hybridisers to consider *D. bifalce* and its hybrids as possibilities for producing novel and appealing striped flowers.

Seventeen years later *D.* Guinea Maid was registered by Limberlost in 1968. Again *D. bifalce* was the pod parent, crossed with *D.* New Guinea (*D. macrophyllum* x *D. atroviolaceum*). Of the 14 registered primary crosses, nine were made in Australia by hybridists including Kevin McFarlane, Phil Spence, Ian Lonne and J. Jones. In the first generation crosses, eleven were primary hybrids with sections *Spatulata, Dendrocoryne, Latouria* or *Phalaenanthe.* Where *D. bifalce* was crossed with a hybrid, these same sections were used, most frequently section *Spatulata.* Many of the primary crosses have been used in more complex hybrids. While *D. bifalce* tends to have spots or small rows of deeper colour, the exciting find for hybridisers was that it commonly produced plants with stripes on the petals and sepals. Depending on the other parent, the progeny showed narrow to wide segments and a variety of shapes, but the striping on the segments was fairly consistent and highly desirable.

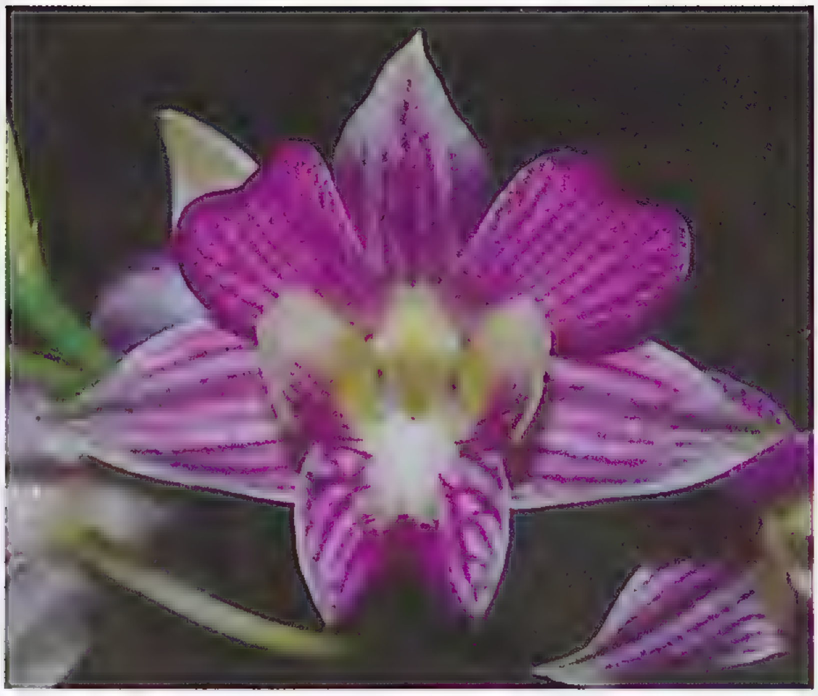
Australian hybridist Phil Spence (pers. comm.) chose to use *D. bifalce* as a parent because of its long-lasting qualities and very long peduncle. The striping was an added quality and was quite dominant. He reported that when hybridising with *D. bifalce*, the seedlings had very little variation in the first generation in that most were striped. The striping carried through for 4–5 generations. *Dendrobium bifalce* was the source for the striping in *D.* Candy Stripe and its line of hybrids. The open presentation of the flowers also carried on to its progeny. Less desirable results from using *D. bifalce* as a parent were that the flower size was smaller than desirable and often with crowding of flowers on the rachis. It is also a comparatively large growing plant, considering it has relatively short racemes with few flowers. Overall the hybrids did not conform to the popularly desired form of round and flat flowers.

In contrast, *D.* Edda (*D. bifalce* x *D. tetragonum*) (illustrated), made by Kevin McFarlane from Cairns, Australia, did not display dominance of shape from *D. bifalce*. Flowers predominantly resembled *D. tetragonum* in shape, often with some twisting to the segments. Doug Moss, Queensland hybridiser and proprietor of the former Southern Cross Orchid Nursery, used *D.* Edda to produce *D.* Wasyl (illustrated) and several unnamed hybrids. He said it was a flower that only a mother could love. There are three hybrids made in Australia and registered with *D.* Edda as a parent - *D.* Wasyl (*D. speciosum* x *D.* Edda) (illustrated), *D.* Edan Stripes (*D.* Edda x *D.* Ellen) (illustrated) and *D.* Eddaz Cool (*D.* Edda x *D.* Peter).

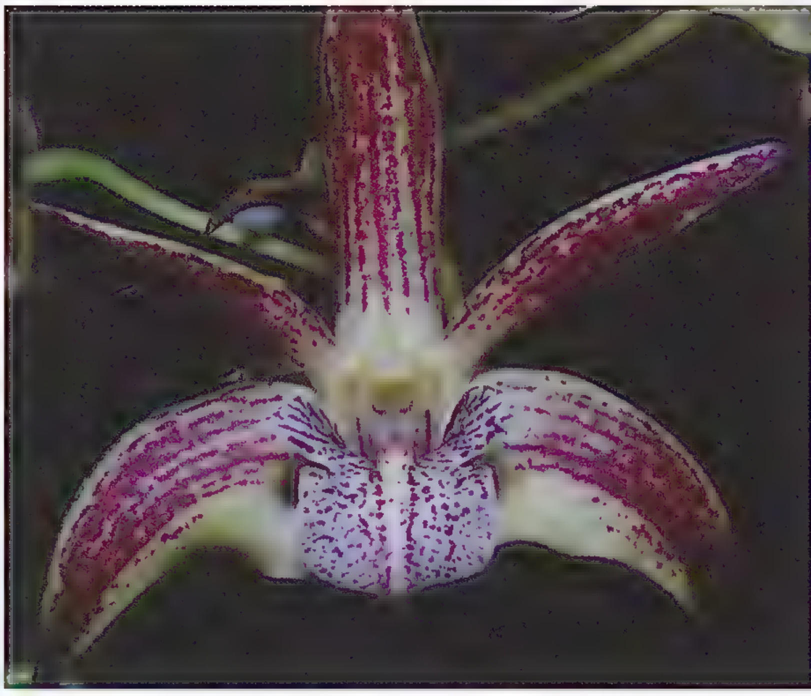
Dendrobium Wasyl seedlings show variation in the colour and general shape of the flowers with some striping being apparent. While *D. bifalce* has not strongly dominated in shape, it has improved the presentation of the flowers. Other unregistered crosses using *D.* Edda with various *Dendrobium* sections show the influence of *D. bifalce* with the striping to varying degrees, including solid lines. While intersectional hybrids predominantly between sections *Latouria* and *Dendrocoryne* produced some lovely novelty hybrids, another line of breeding was in progress with the aim of producing showbench style hybrids using section *Phalaenanthe.*

Kevin McFarlane was noted for breeding novelty plants within many *Dendrobium* sections. He was a pioneer of striped dendrobiums, and one of his more popular crosses was *D.* Candy Stripe (illustrated), made in 1979 (*D.* Dianne McFarlane x *D.* Margaret Joan Fell). The strength of the stripe and general shape of the flowers were promising, and *D.* Candy Stripe was widely used as a parent, with 64 first generation crosses registered, eleven of which have been awarded. Further generations using *D.* Candy Stripe and its progeny have improved the shape of the flowers and reduced some of the negative aspects found in earlier hybrids. However, even in a complex hybrid where *D. bifalce* may only be an extremely small proportion of the hybrid, the striping is still evident. In most cases the flowers have very little other resemblance to *D. bifalce.* In *D.* Burana Stripe and *D.* Kiilani Stripe (both illustrated) the parentage of *D. bifalce* is around 3% and 6% respectively, but the striping is still predominant.

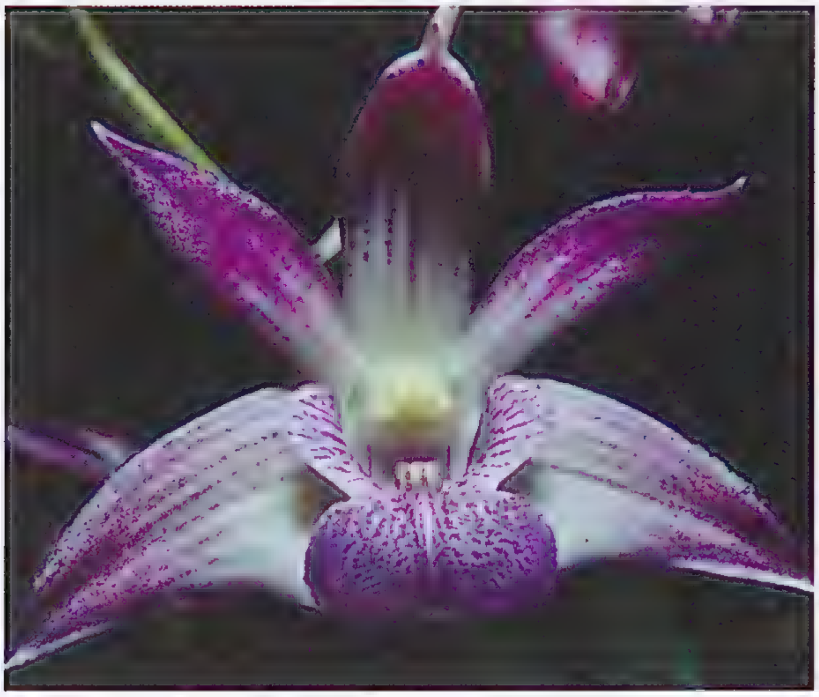
Our latest flowering of a hybrid with *D. bifalce* in the background is *D.* Burana Stripe x *D.* Burbank Candy (illustrated) with 3.9% *D. bifalce.* Even with this low contribution of *D. bifalce*, the striping remains prominent. A further development



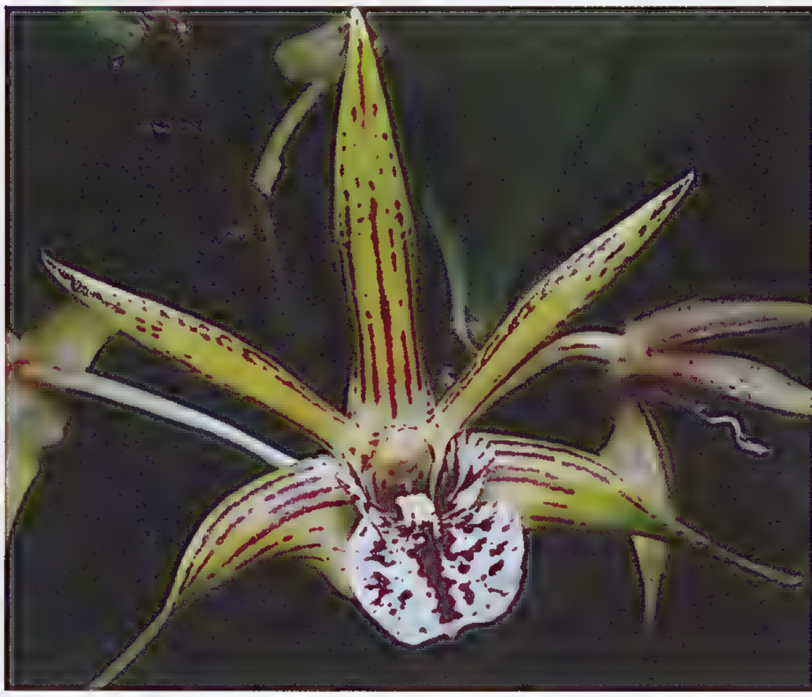
Dendrobium bifalce x *D.* Doreen



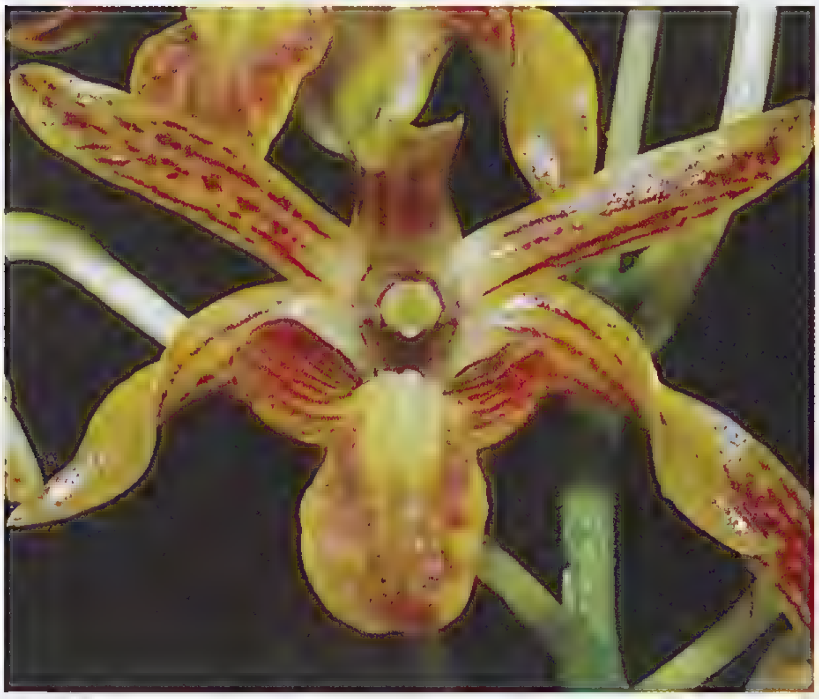
Dendrobium Edda x *D.* Gillian Leaney



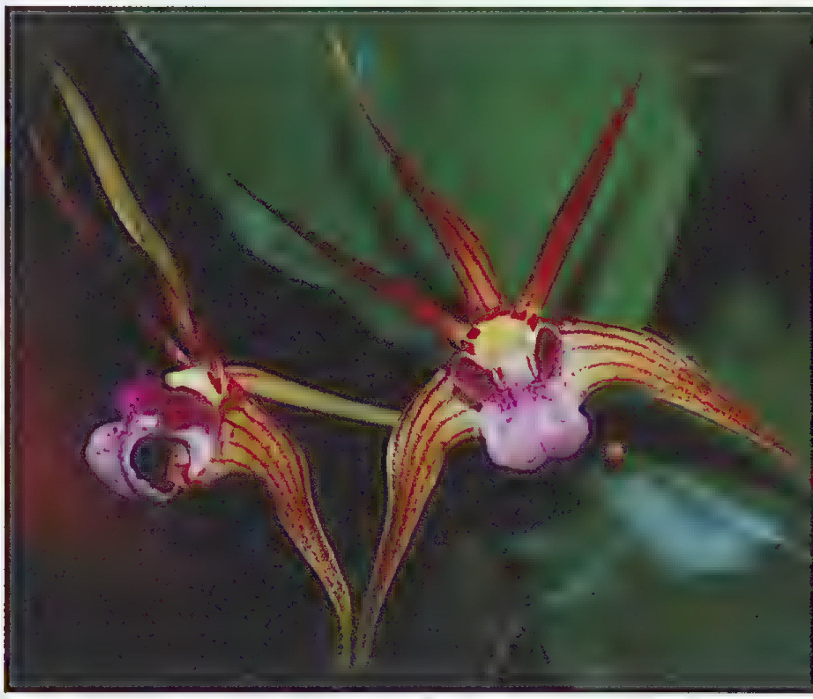
Dendrobium Edda x *D. kingianum*



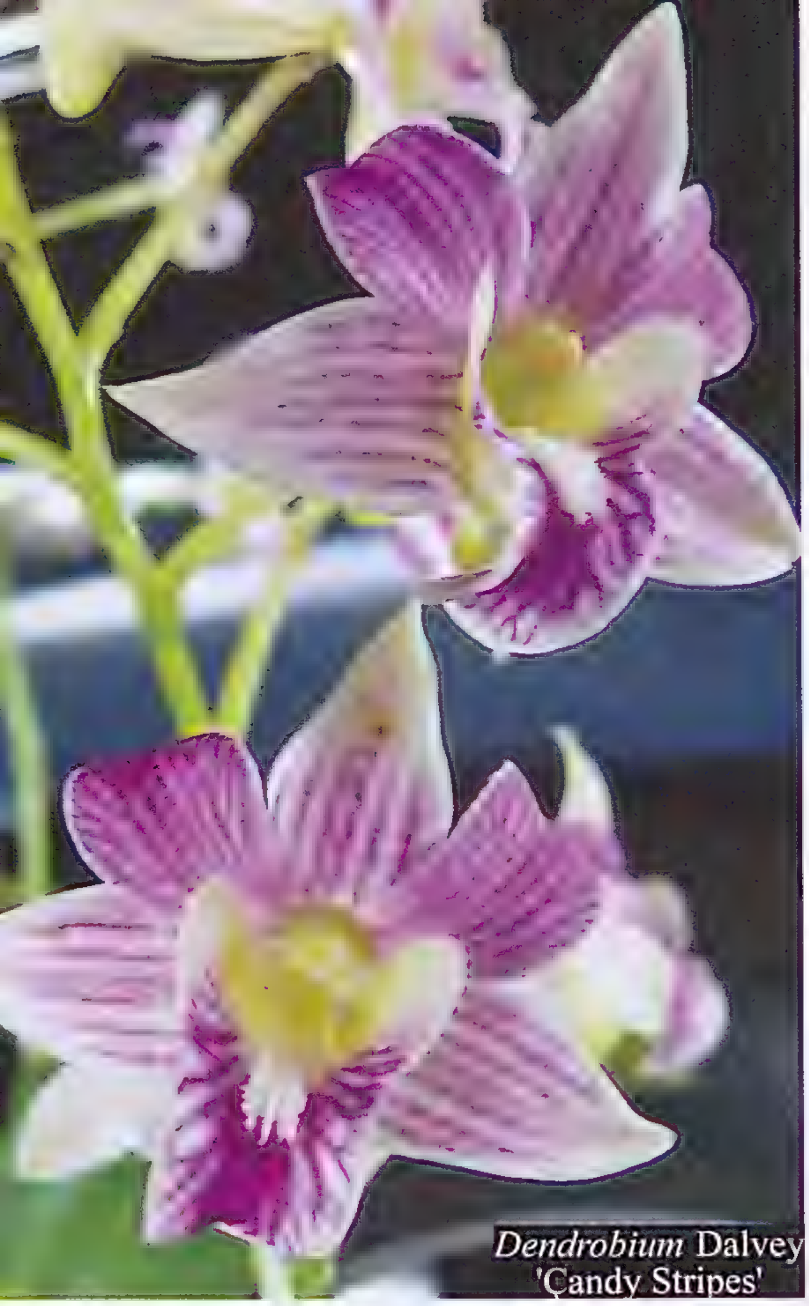
Dendrobium Edda 'Lloyd' x *D. speciosum* 'Pure Gold'

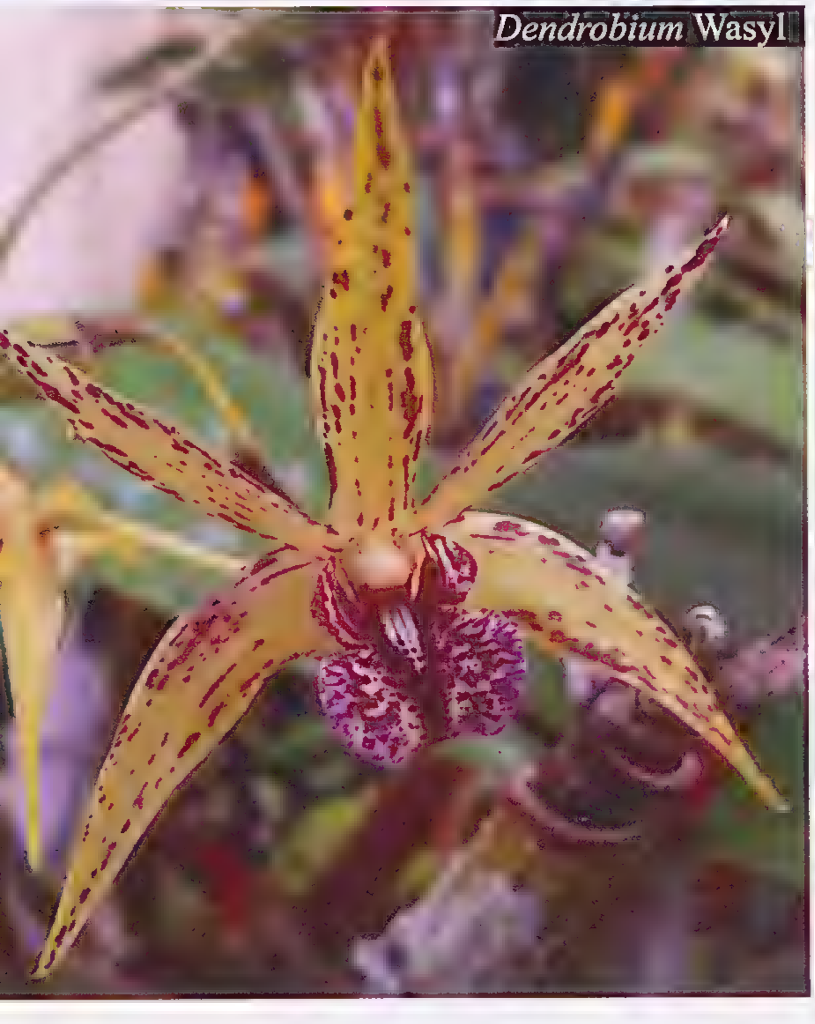


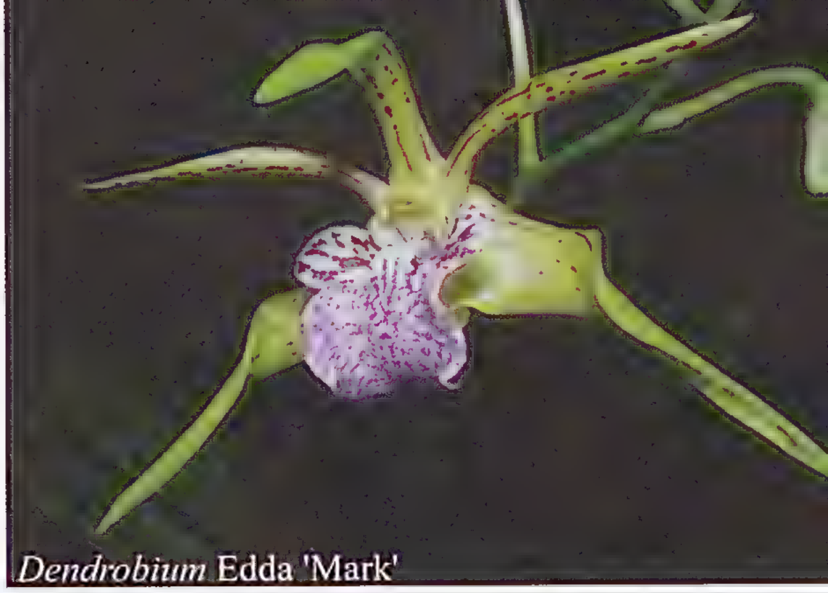
Dendrobium Maggie May

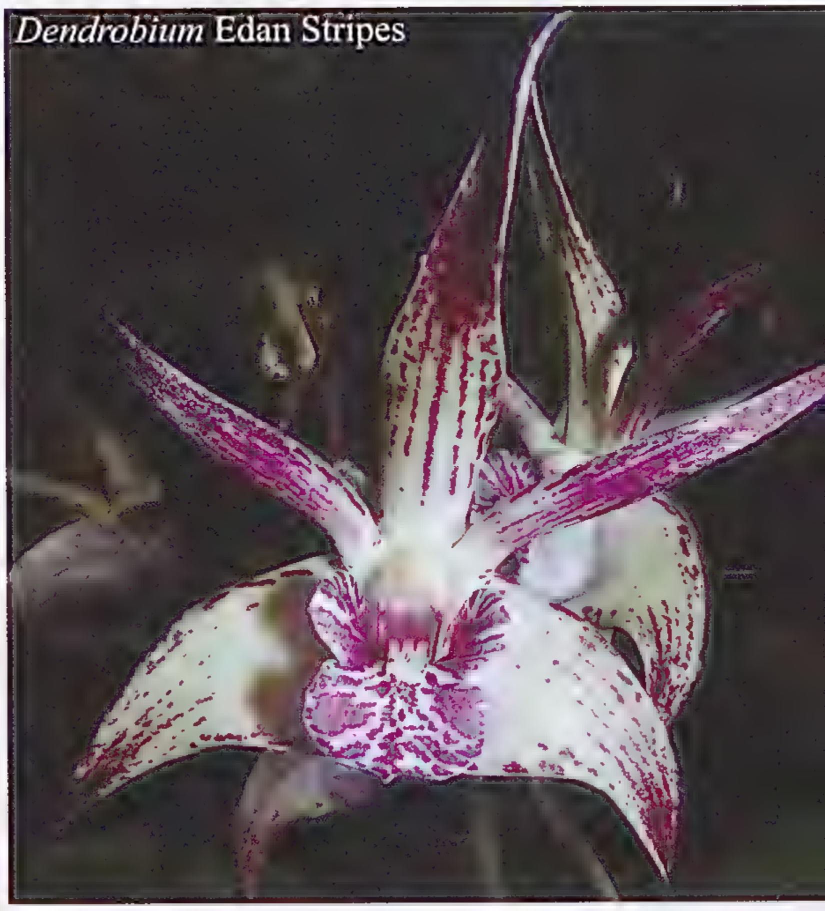


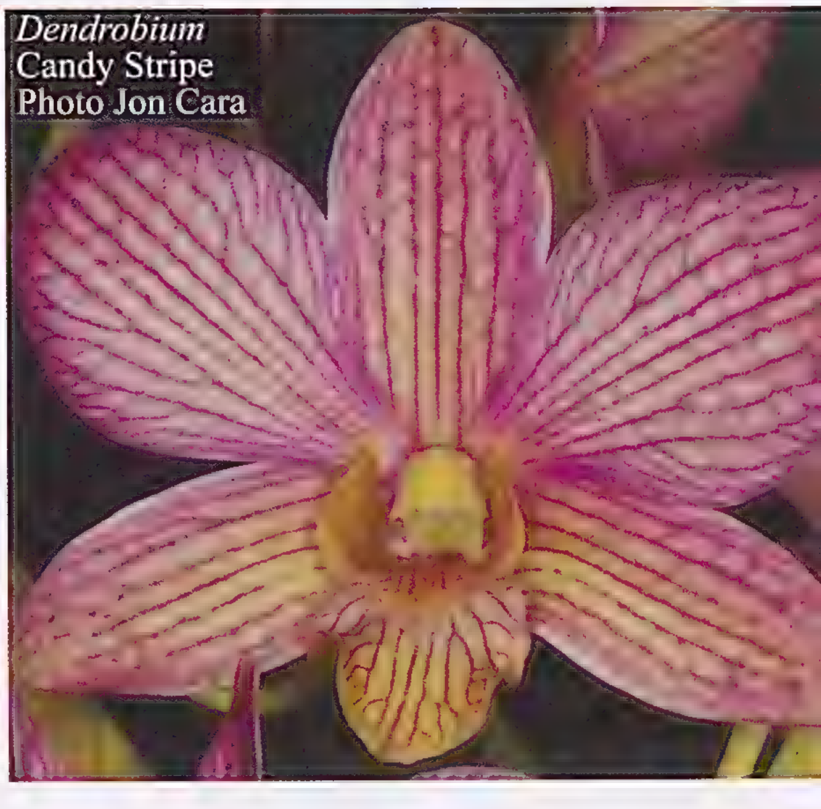
Dendrobium Rosella x *D.* Edda


Dendrobium Dalvey 'Candy Stripes'


Dendrobium Wasyl


Dendrobium Edda 'Mark'


Dendrobium Edan Stripes


Dendrobium
Candy Stripe
Photo Jon Cara

was the use of *D. bifalce* in striped pansy-style dendrobiums. Crossing a striped *D.* Candy Stripe with a well-shaped pansy-type *Dendrobium* of plain colour resulted in some of the progeny flowering with striking, striped blooms.

The earliest *D. bifalce* crosses caused excitement when they were found to breed interesting plants with striped flowers. While having a charm of their own and displaying characteristics of the species that may not have represented good shape in judging terms, they formed the building blocks for much future hybridising. The early *D. bifalce* hybrids eventually became the basis for developing well-shaped, award-winning hybrids.

This small orchid has had a significant influence in the development of striped dendrobiums. Sometimes the contribution from a species is lost over time however *D. bifalce* has carried its influence through into quite complex hybrids. It has also allowed other orchids to be dominant in shape and colour, giving breeders the opportunity to create the striped show-bench hybrids seen today.

For an orchid with a small representation in our range of Australian orchids, *D. bifalce* has played a large part in developing a new range of dendrobiums, and may be said to have earned its stripes.

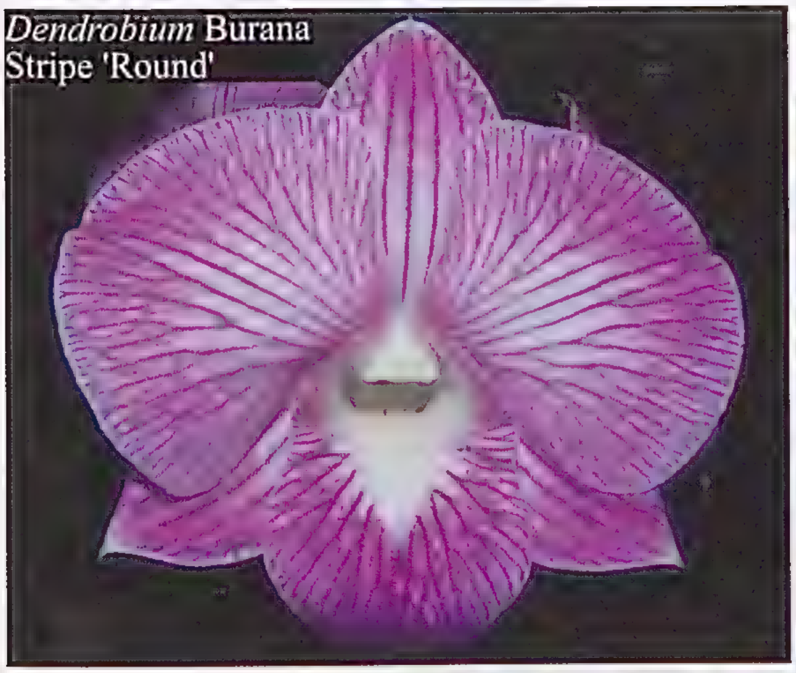
Pam Porteus is an experienced orchid grower and ANOS judge.

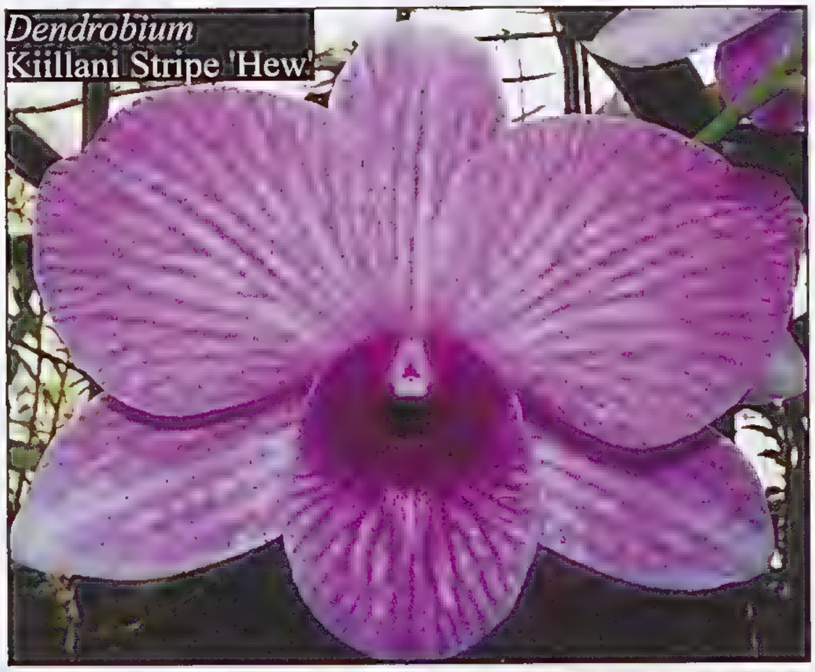
Acknowledgements

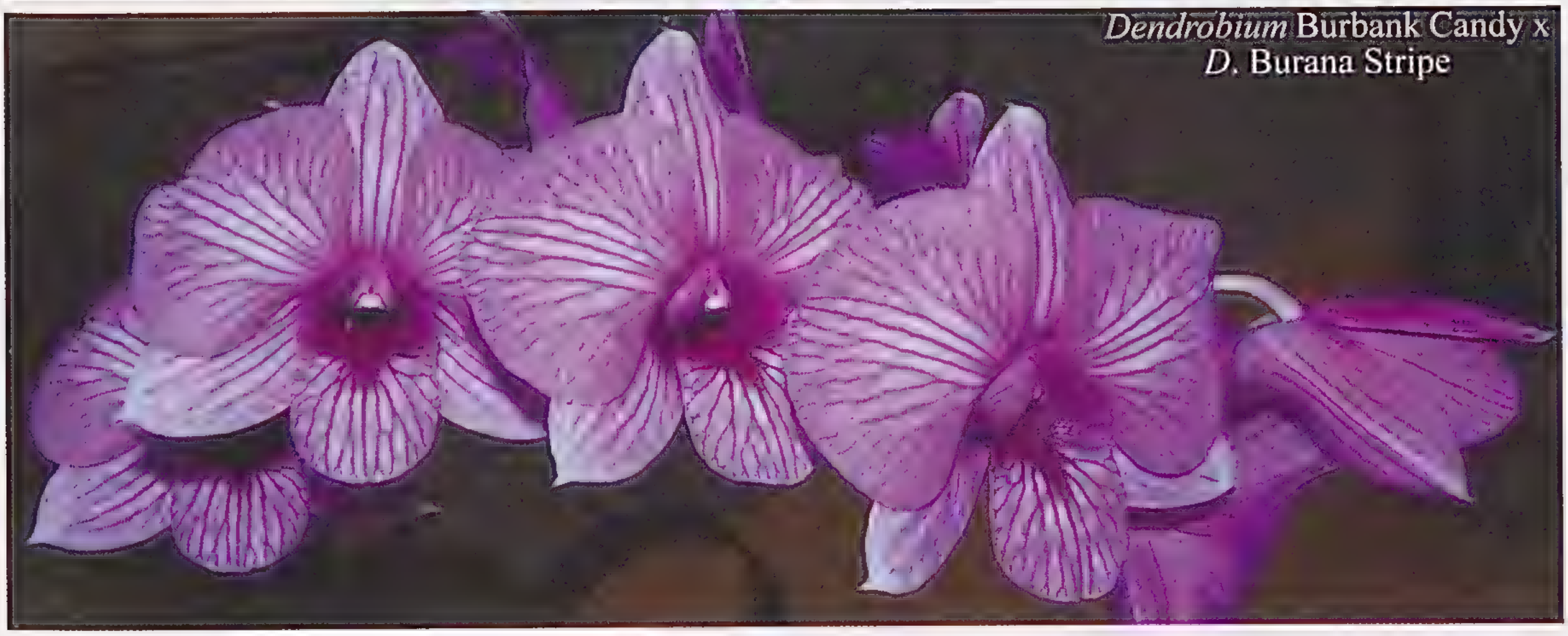
Photograph of *D.* Candy Stripe by Jon Cara. Other photographs by Trevor Porteous.

Reference

Cribb, P. J *A revision of the Antelope and "Latouria" dendrobiums*. Reprinted from *Kew Bulletin* 38(2) 1983 and 41(3) 1986.


Dendrobium Burana Stripe 'Round'


Dendrobium Kiillani Stripe 'Hew'


Dendrobium Burbank Candy x *D.* Burana Stripe

The Henry Somerset Conservation Area, Tasmania

Peter Tonelli
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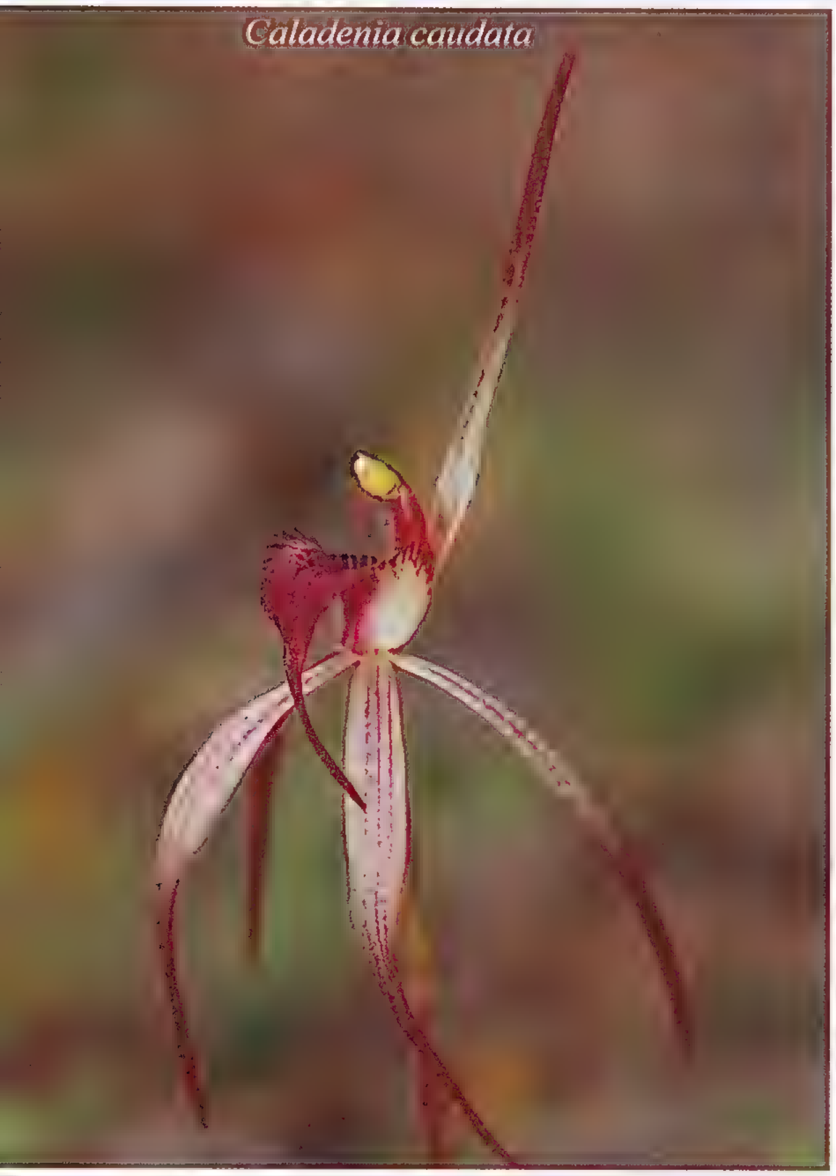
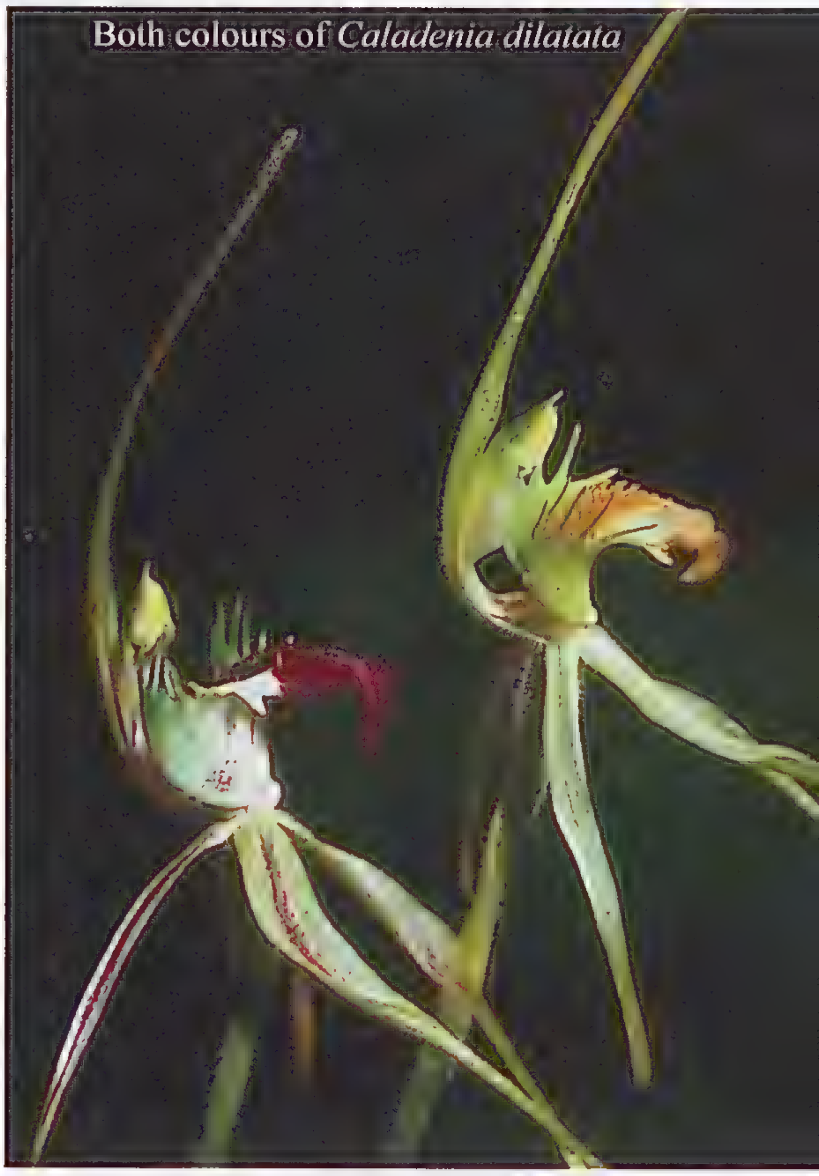
In 1965 the late M. J. (Jack) Firth, author of *Native Orchids of Tasmania*, identified principal areas and locations for terrestrial orchids, such as Tamar Valley, Rocky Cape and Coles Bay. One site often recorded was Railton Hills, where the Mersey Valley encompasses the two principal hamlets of Latrobe and Railton; both enclosed by naturally forested hills. The question was which area of hills was he referring to?

My interest in orchids began in the late 1960s, and my field searching was usually the roadside bushland that connected the two rural townships mentioned above. One area in particular, which was periodically subjected to public rubbish dumping, contained a rewarding number of terrestrials, including the endemic species, *Caladenia caudata.* The number of genera recorded in this particular location began to climb towards the 40+ mark by 1985. The geology appeared to be quartz gravel overlaying a hard seam of shale, periodically interrupted by damp clay-wash drainage soaks of the *Eucalyptus* dominated vegetated hills. I was reliably informed that the underlying bed rock of petroleum shale had an estimated value of $2 million, but would cost approx. $3 million to be extracted.

It was about this time that botanist Dr Winifred Curtis FLS from the University of Tasmania was drafting her final manuscript of *Students Flora of Tasmania, Part 4a. Angiospermae: Orchidaceae.* Keen to see fresh material in the field, Dr Curtis joined me in the Railton Hills and in particular, in my patch. Impressed at what she observed, she urged me to submit a detailed report to the owners of the land, Australian Pulp and Paper Ltd., with a proposal to have an area set aside for the future 'living herbarium' study of our unique terrestrial orchids.

Success followed! Henry Somerset Orchid Reserve was officially opened on 27th November, 1981 by the Premier of Tasmania, Harry Holgate. As far as I know, it is the only reserve in Australia set aside for


Caladenia caudata


Both colours of *Caladenia dilatata*

HENRY SOMERSET CONSERVATION AREA
THIS AREA DEDICATED TO NATURE CONSERVATION

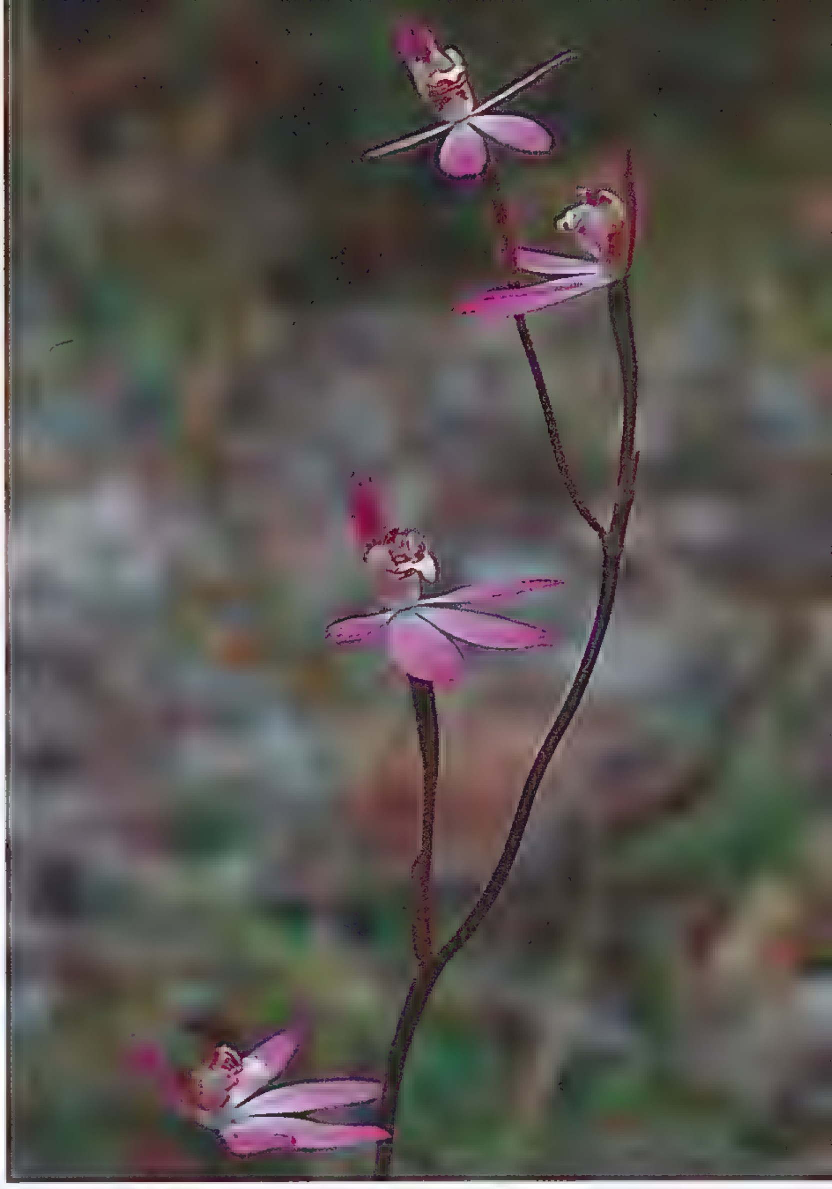
Sir Henry and Lady Somerset

the study of terrestrial orchids. It is named after the late Sir Henry Somerset, a former engineer, deputy chairman and managing director of Associated Forest Holdings, and an avid naturalist.

The role of custodian of the reserve at the time rested on the shoulders of the Devonport Orchid Society, but now incorporates other valued management partners such as Threatened Plants Tasmania Inc., whose members annually monitor threatened species orchid populations. The results are eventually formatted into the *Natural Values Atlas of Tasmania* by the State Department of Primary Industry, Parks, Water and Environment.

In his taxonomic review of the genus *Caladenia,* David Jones cited the discovery of a new species submitted from material from the gazetted site. *Caladenia tonellii*, the robust finger orchid, was named after the reserve's founder and Honorary Warden Peter Tonelli, who is a co-author of *The Orchids of Tasmania.*

The reserve consists of 38 hectares of light sclerophyll regrowth open woodland, and is situated five km south of the small north-west town of Latrobe, on the Railton Road. There is a well-trodden nature walk which assists in observing occasional specimens along the track circuit. Designated visitor parking off the Railton main road and an information kiosk have been professionally erected by other State Government agencies, as an ecological reference to the life cycle and protective management of the orchids, not only at this site but others of similar scientific interest now established in other parts of Tasmania. Henry Somerset Reserve was the first of its kind and set the bar for others to follow, principally small Tasmanian reserves with an accent on local orchid flora. Other reserves include:



Caladenia tonellii

Winifred Curtis Flora Reserve at Scamander, on the East Coast.

Tom Gibson Reserve at Epping Forest, in the Midlands.

Peter Murral Reserve at Howden, south of Hobart.

Waverly Flora Reserve at Bellerive, eastern shore of Hobart.

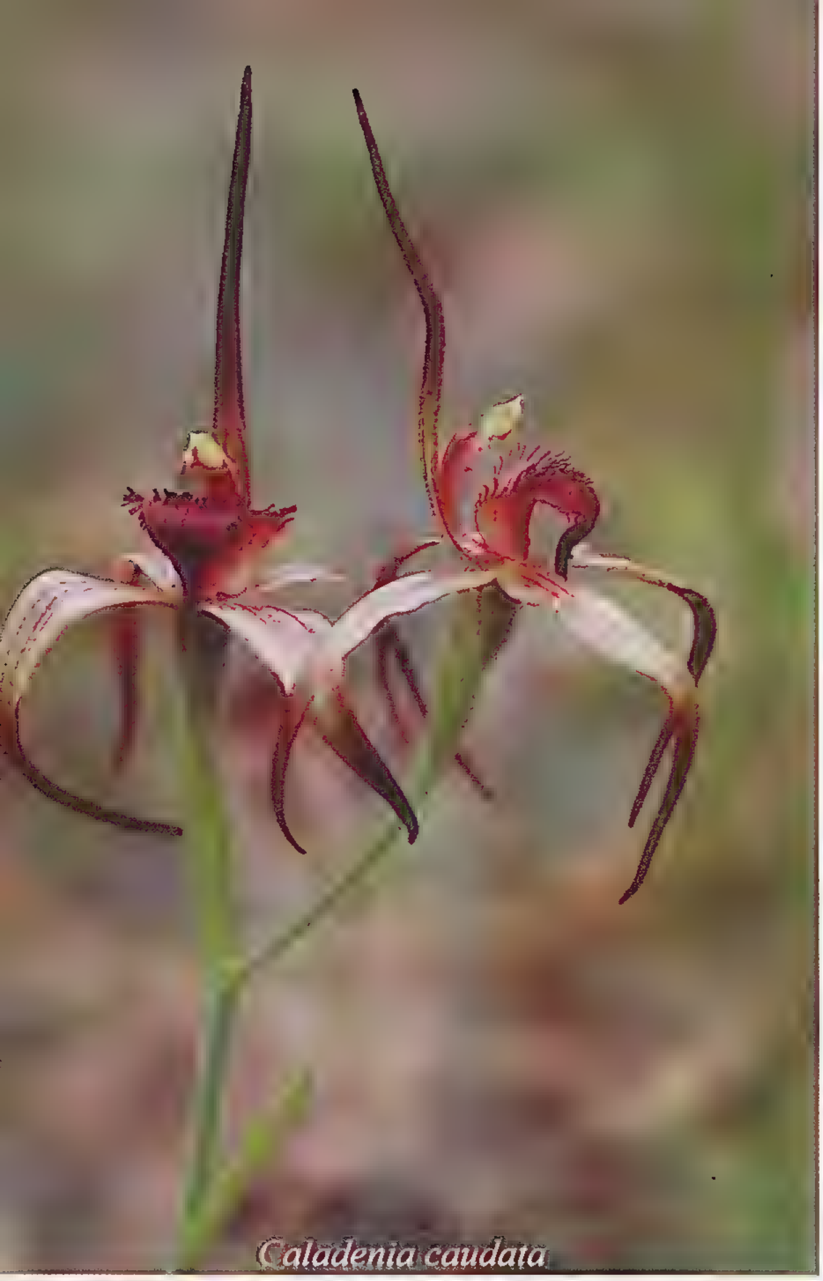
Entry to the reserve is free. Some of the orchids found in the Henry Somerset Reserve are illustrated with a short description and notes, using nomenclature as in *The Orchids of Tasmania.*

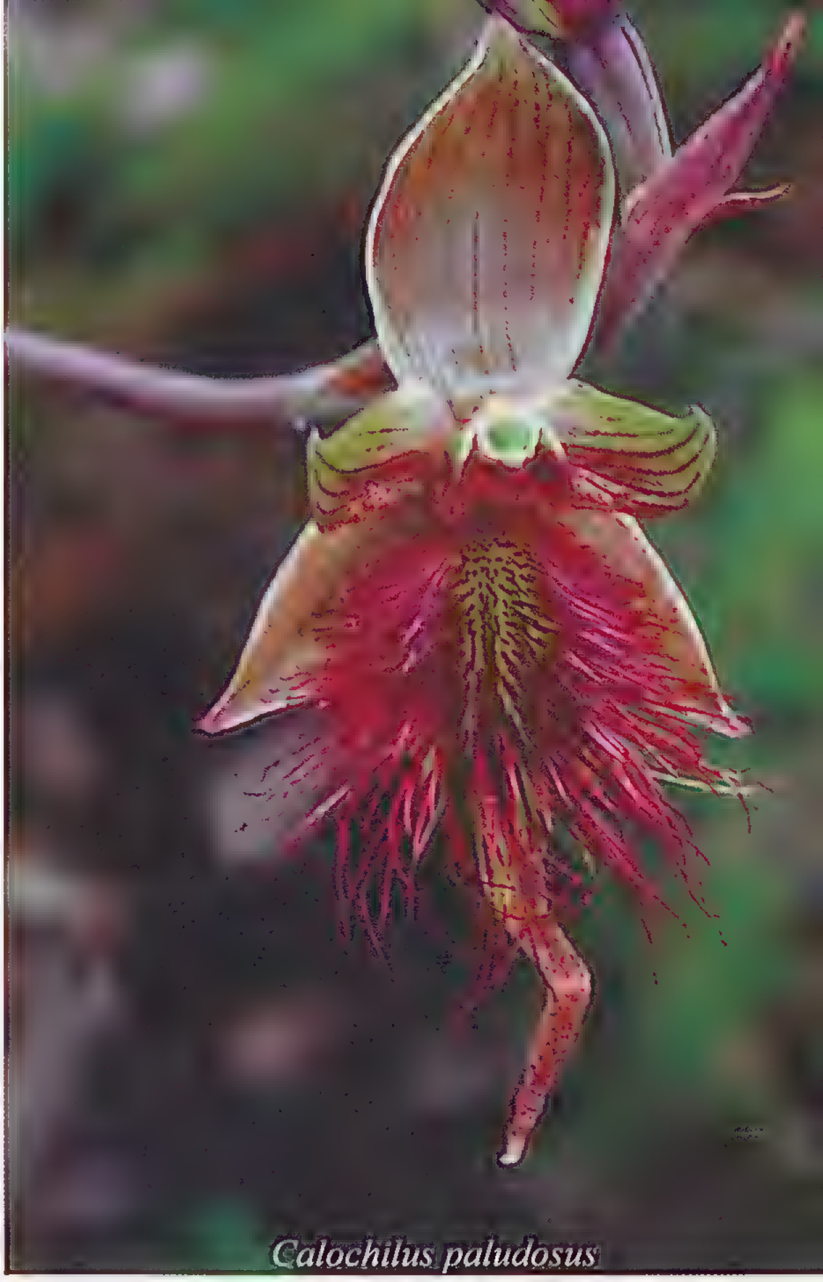
Notes on Some of the Orchids

Caladenia dilatata R.Br., green comb spider orchid

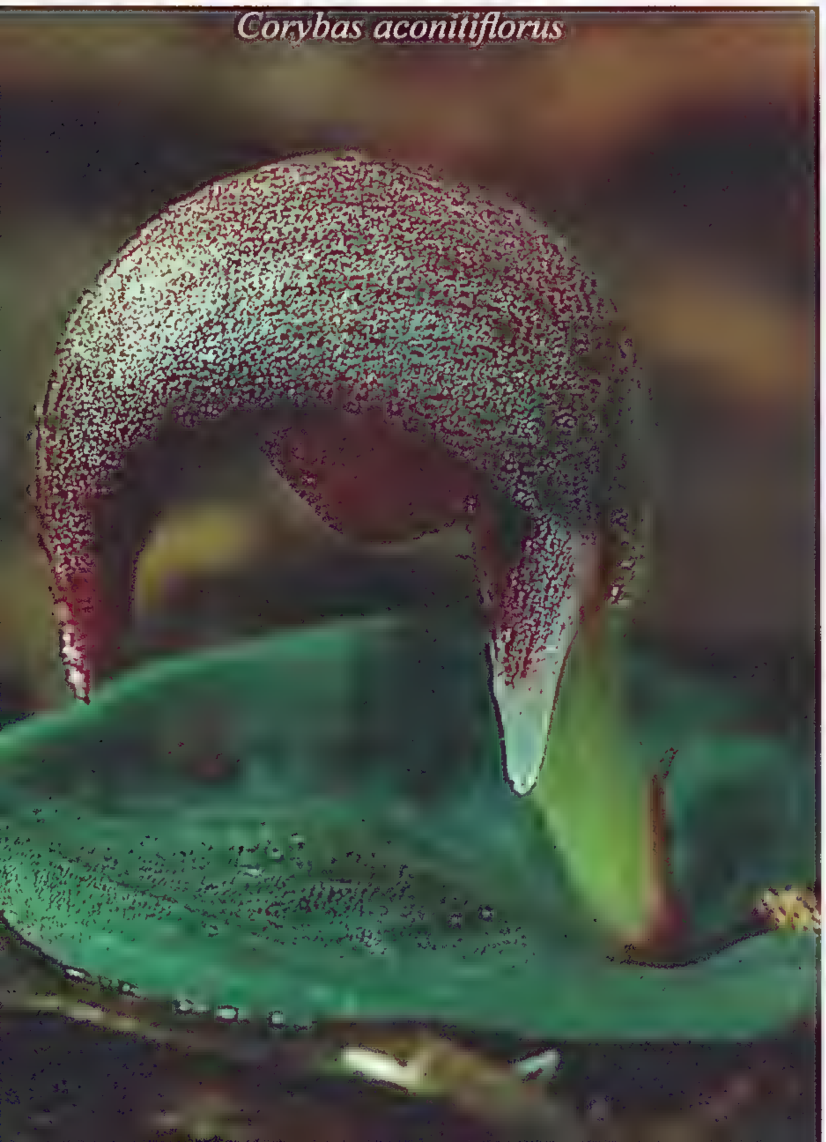
Key feature: anterior margins of the labellum fringed with distinct comb-like teeth.

A tall late summer flowering (November to late January) orchid with a broad, mobile, alluring reddish-maroon tips to the distinctive calli and apex of the labellum. Occasional yellow forms

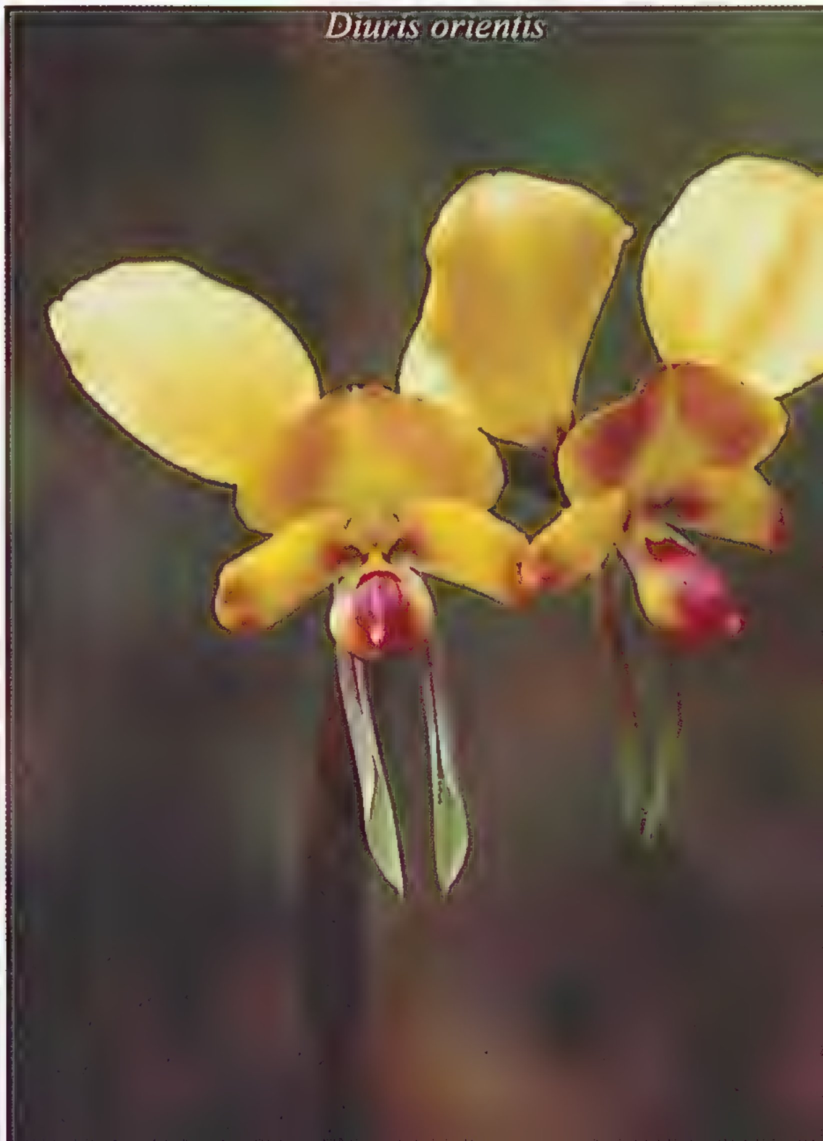

Caladenia caudata


Calochilus paludosus

Corybas aconitiflorus



Diuris orientis



occur that conceal their presence amongst the ground cover and low native shrubs. Widespread and locally common in open sites in eastern and northwest Tasmania, and also in southern Victoria.

Caladenia caudata Nicholls, tailed spider orchid

Key feature: Labellum with glandular apical caudae to 8 mm long and marginal teeth 1.5 mm long.

A striking small flowering *Caladenia* that appears locally abundant but sporadically, somewhat variable in respect to its defining features, but a distinctly recognisable species because of the abruptly tapering length of the labellum. The plants are up to 15 cm tall, densely hairy, usually with single pink to reddish coloured flowers. Widespread and localised in lowland coastal and near coastal areas to 250 m. Found in dry open sclerophyll forest and coastal heathlands. Endemic to Tasmania.

Caladenia tonellii D.L. Jones, robust finger-orchid

Key feature: Plants to 35 cm tall, flowers 25 - 38 mm across, labellar lateral lobes broadly rounded.

A fairly recently described species, recognized by its unique size, to 35 cm tall, with 2 – 5 large light to dark pink flowers with expanded side lobes to the labellum. It is closely allied to *C. carnea* but is more robust with larger characteristics. Flowers in late October to early December. Previously known only from the type location, the Henry Somerset Reserve, the type specimen collected in 1994, but subsequent searches have revealed other sporadic locations. It has a restricted distribution in *Eucalyptus amygdalina* forest with a shrub understorey and shallow clay loam/gravelly loam soils. Endemic to Tasmania.

Calochilus paludosus R.Br., strap beard orchid

Key feature: Labellar hairs reddish, column wings without glands at the base, usually with short, erect intra-marginal plates.

A slender beard orchid to 35 cm tall, flowering early November to January. The specific name *paludosus* refers to it growing in swamps. Widespread in Tasmania and locally common in wet peaty heaths and margins of swampy marshland, an appealing species with an almost iridescent glow from the hairs or calli on the labellum surface. A distinct feature is the strap-like tail on the apex of the lip. It also occurs in Victoria, NSW, Qld, Australian Capital Territory (ACT) and SA.

Chiloglottis reflexa (Labill.) Druce, autumn bird orchid (not illustrated)

Key feature: Lateral sepals distinctly recurved or reflexed beneath the labellum, leaves shortly stalked.

This autumn flowering species (February to May) is inclined to produce large colonies of bifoliate (two) leaves, but few single delicate flowers. The amazingly arranged calli on the surface of the hinged labellum emit a pheromone that attracts male native wasps which pollinate the orchid in a process of pseudocopulation. It is common and widespread in open lowlands up to 300m., also in Victoria and NSW.

Corybas aconitiflorus Salisb., spurred helmet orchid

Key feature: Base of the labellum with two protruding hollow spurs, the dominant dorsal sepal resembles a medieval helmet.

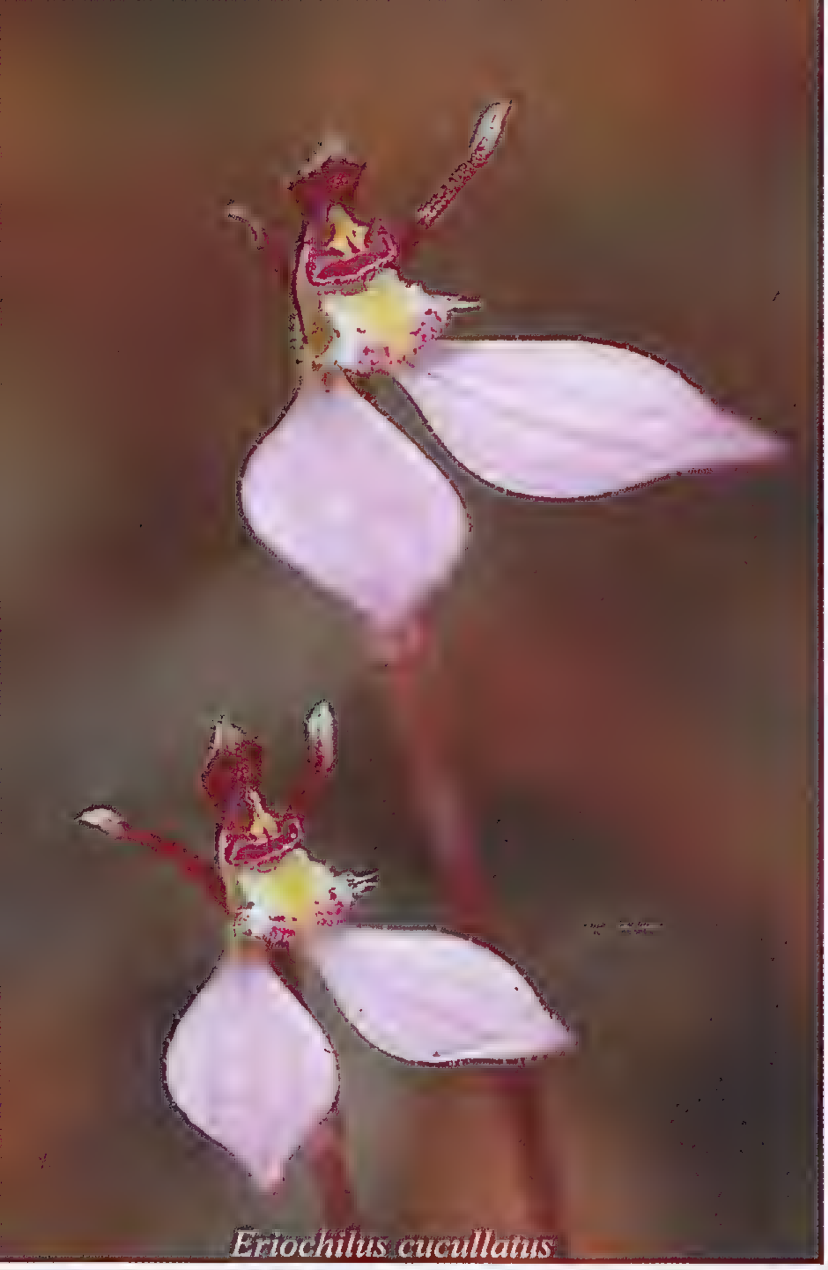
A plant with a short stalk standing 3 cm or less high, and a ground hugging, oval shaped leaf that has obvious reticulated veining above and dark reddish purple beneath. Flowering April to July. The flowers are purplish/grey-purple, erect on a short slender stalk Widespread, forming large colonies emerging from the leaf litter in coastal forest areas that are moist and well drained. Also occurs in Victoria, NSW, and Qld.

Corybas fimbriatus (R.Br.) Rchb.f., fringed helmet orchid

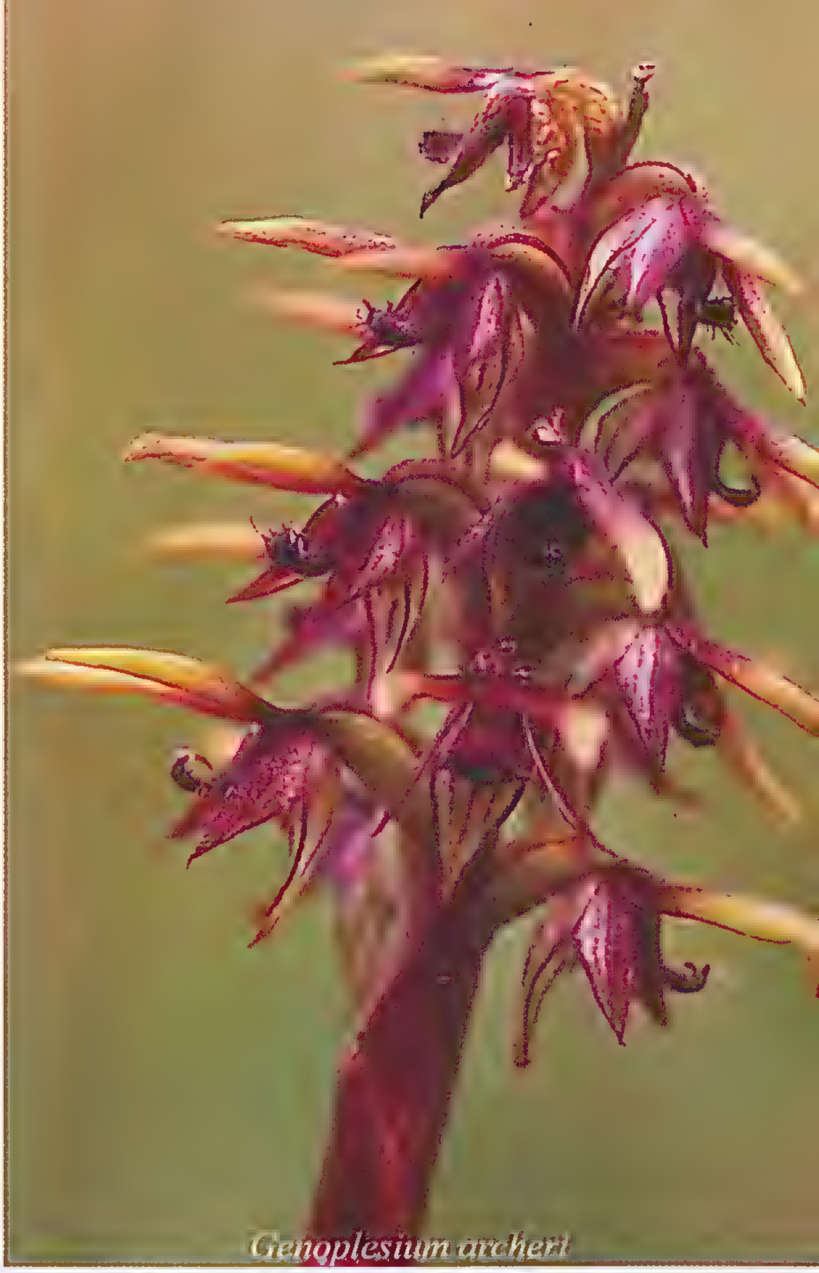
Key feature: Labellar margins prominently fringed with long narrow teeth.

A most attractive winter flowering (May-July) orchid found in coastal woodland, forming large colonies and having a single plain round leaf that is green on both sides. The flowers appear as 'fire opals' as they emerge from under the damp forest leaf litter, and are sessile on the leaf, dark reddish purple with transparent mottling, in the shape of a helmet. Localised in lowland areas in the north and northwest in damp well drained sites sheltered by low and medium sized shrubs. Also found in Victoria, NSW and Qld.

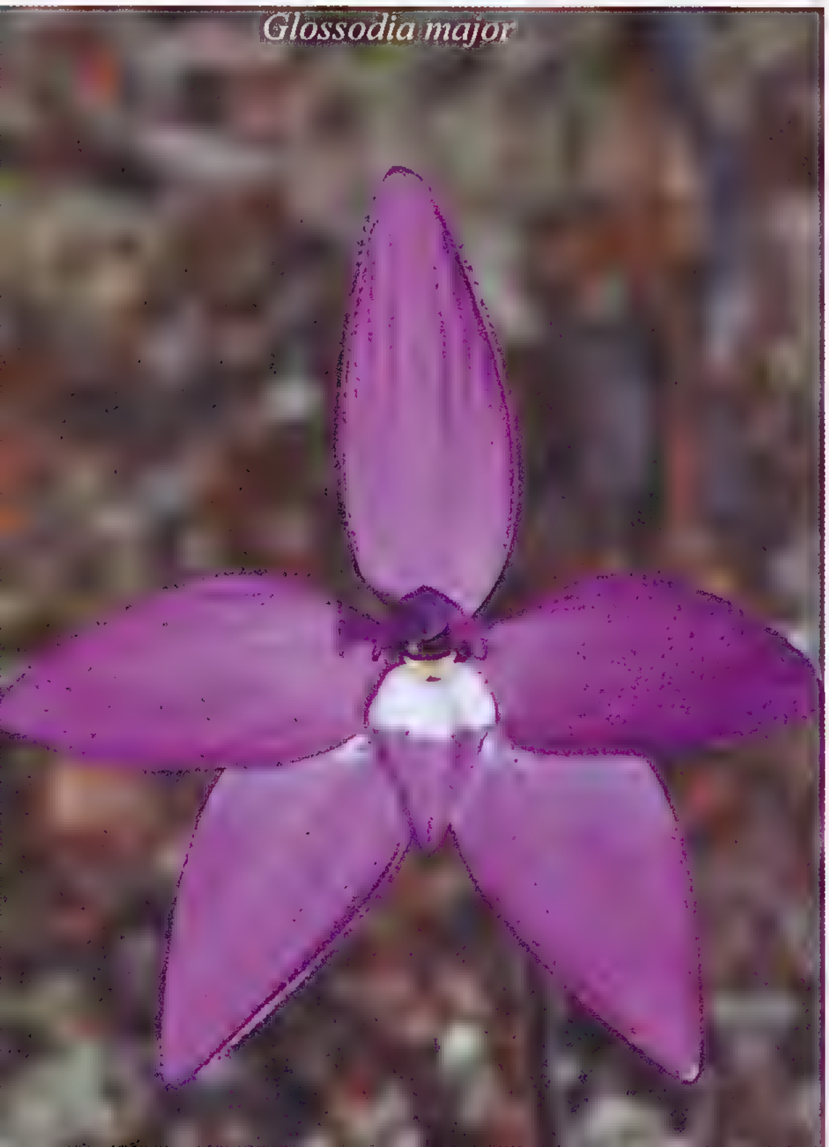
Dipodium roseum D.L. Jones and M.A. Clem.,



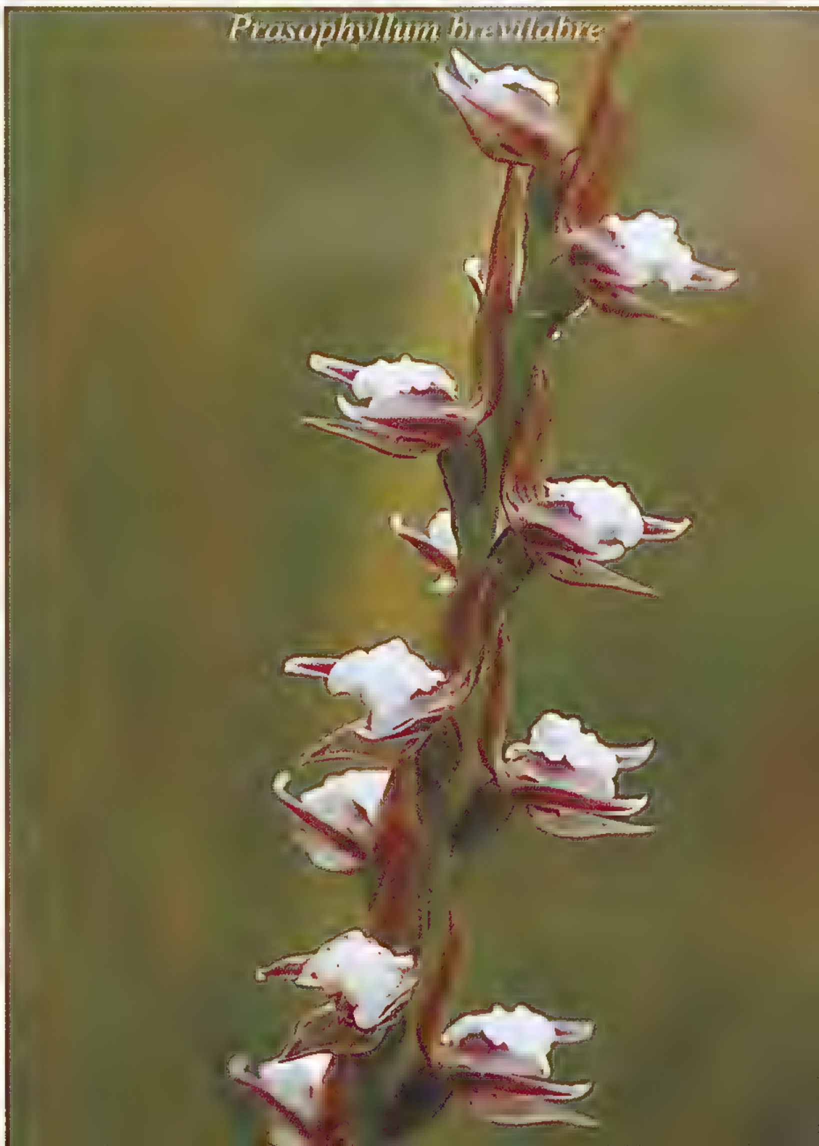
Eriochilus cucullatus



Genoplesium archeri



Glossodia major



Prasophyllum brevilabre

hyacinth orchid (not illustrated)

A large species, also known as *D. punctatum*, appearing towards the end of December. The leafless, asparagus-like green-dark red black stem emerges to present one of the most spectacular displays of tall, multiple lightly-spotted flowers with recurving perianth, and a pale to dark pink inflorescence. Mostly found in dry lightly forested bushland. A saprophytic plant that derives its energy from a symbiotic fungal relationship in the soil. It is widespread and locally common in open lowlands of southeastern, eastern and northern Tasmania, also in Victoria, NSW, Qld and SA.

Diuris orientis D.L. Jones, eastern wallflower or donkey orchid

Key feature: Labellum distinctly three-lobed from the base, perianth usually diffuse yellow and purplish brown but not distinctly spotted, occasionally wholly yellow.

One of the most attractive and distinctive spring flowering (early October to early November) orchids, often difficult to locate amongst many other yellow-brown wildflowers appearing at the same time. Single stems up to 40cm tall emerge from a cluster of grass like leaves; 1–6 flowers are held erect in a loose terminal raceme. Widespread but localised in coastal areas in the north and southeast on the Tasman Peninsula and South Arm Peninsula, also in Victoria, NSW and SA. Prefers open well drained sites

Eriochilus cucullatus (Labill.) Rchb.f., parsons bands orchid

Key feature: two white, light to bright pink flowers with downward pointing lateral sepals resembling preaching bands.

A single species representing *Eriochilus* in Tasmania, The large solitary leaf appears after flowering of 1–5 flowers has finished, a slender appealing, scented terrestrial displaying exquisite floral features when viewed closely. Widespread and frequent over the state, including central inland areas from dry heathland at sea level to alpine herb fields. Also found in Victoria, NSW, Qld, ACT and SA.

Genoplesium archeri (Hook f.) D.L. Jones and M.A. Clem., elfin midge orchid

Key feature: Labellum margins fringed with hairs.

A tiny slender plant adorned with a tightly congested head of flowers, in a display of flowers which are yellowish-green with pale reddish or purple markings, occasionally wholly deep purple. Flowering November to March. Extremely difficult to locate amongst the ground cover along the margins of swamps or run-off soak gullies. Widespread and locally common in most lowland coastal areas to 400m, and not in the midlands. Also found in Victoria and NSW.

Glossodia major R.Br., waxlip orchid

A single distinct species of *Glossodia* is found in Tasmania, present throughout the island in sub-alpine sclerophyll forests, open woodland and open sandy Holocene dunes. It flowers between mid September and mid November. One of the most common, showy, colony forming ground orchids in the state, colours ranging from pure white to blue and dark mauve. The flowers are usually single, occasionally double and create large displays in middle to late spring. Widespread and often very abundant in eastern, northern and southeastern Tasmania, also in Victoria, NSW, Qld, ACT and SA.

Prasophyllum brevilabre (Lindl.) Hook.f., short lip leek orchid

Key feature: Extreme reflexing of the white labellum, positioned almost parallel, turned back on itself at the apex of the callus.

Summer flowering (October to January) with a slender stem to 50 cm, with 8–32 flowers, green to brown with red markings and a crystalline white labellum. It appears in large numbers after hot summer fires that occur frequently in the Australian bushland and are an essential part of the natural stimulation and regeneration of the forest landscape. Few plants are seen in the following years. It is part of a large and rather complex genus with amassed tiny but distinct resupinate flowers (having the dorsal sepal projecting downwards). Widespread and common in a range of moist habitats, also in Victoria, NSW, Qld, and ACT.

Pterostylis plumosa L. Cady, bearded greenhood

Key feature: A protruding labellum with a dense covering of long yellow hairs, terminating with a dark glabrous knob at the apex. The hood or galea (overlapped perianth) appears heavily veined, with the dorsal point almost erect. The elliptical basal leaves form a tight rosette from which the relatively robust stem emerges.

A bearded orchid with solitary, green white flowers and a striking hairy labellum, plants up to 35 cm tall. Flowering in October and November. It is fairly widespread in open forest, heathland and tea-tree scrub in the eastern part of the state but not found in wetter areas and at high altitudes. Also occurs in Victoria, NSW and SA.

Thelymitra aristata Lindl., great sun orchid

Key feature: Midlobe of column usually falcate in profile, apex shortly divided.

The largest and most spectacular sun orchid in Tasmania, with scape or flower stems reaching 80 cm or more, covered in a mass of individual alluring flowers measuring 3 cm across. It flowers from mid October to early January, later in the cooler western areas. Flowers are pale to deep blue, pink and occasionally pure white, and have a large defining single channelled leaf. They are widespread in lowland, on moderate to well drained soils from sub-alpine forest to coastal heathland, and open best on very warm sunny days. Prolific flowering is seen following wildfires. Also occurs in Victoria, NSW and SA.

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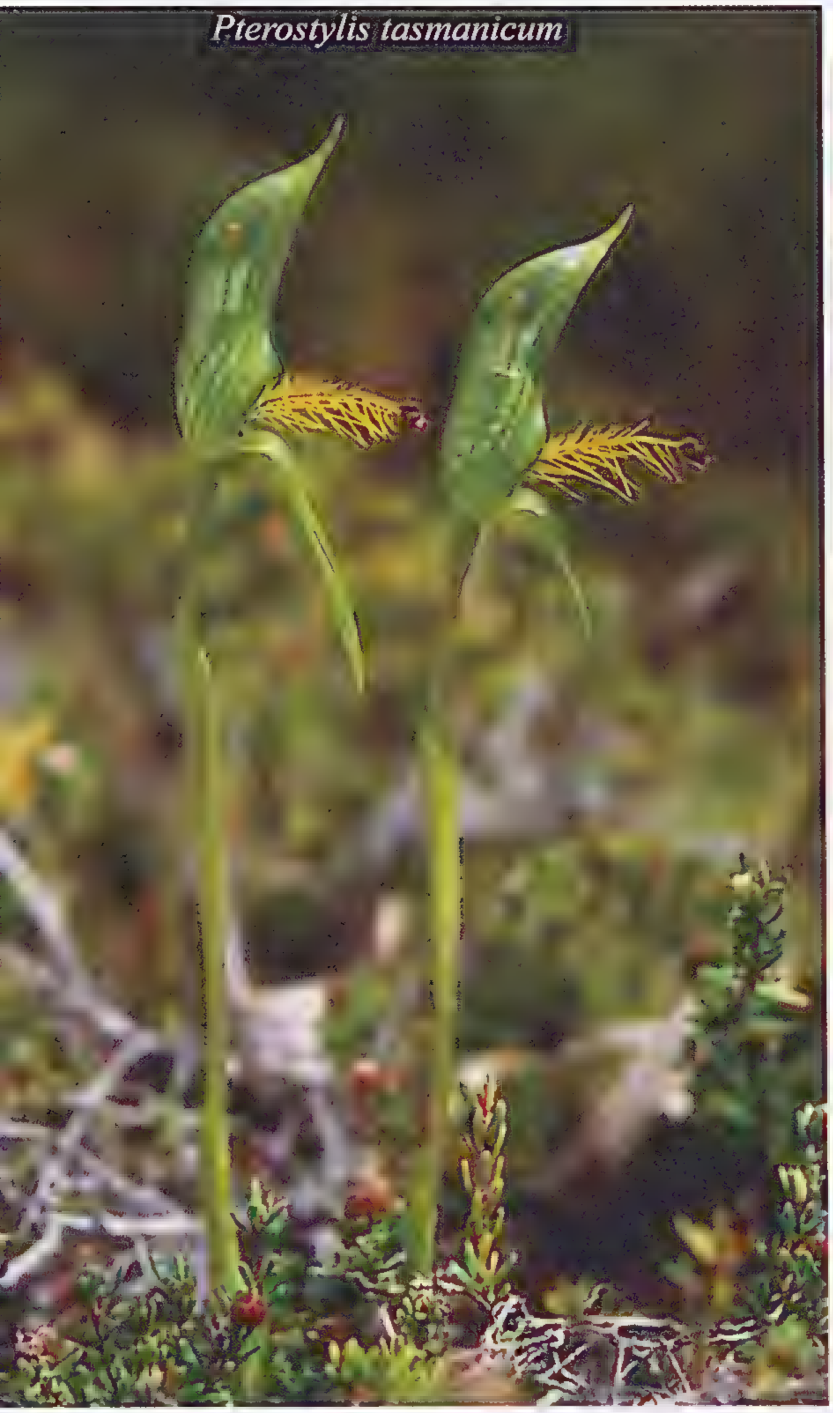
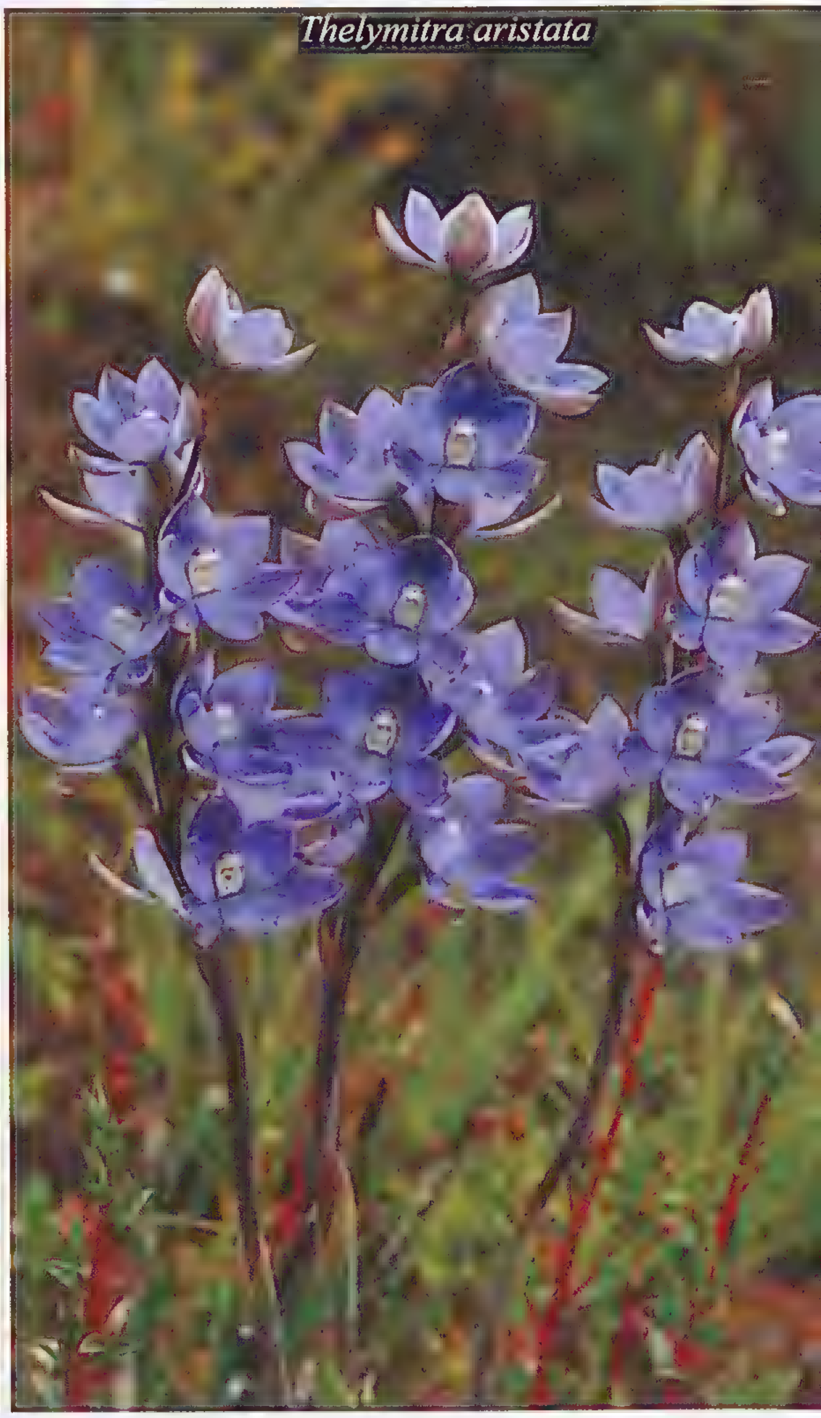
Curtis WM *Students Flora of Tasmania Vol. 4a Orchidaceae*

Peter Tonelli is a Tasmanian naturalist, author and photographer.



Pterostylis tasmanicum



Thelymitra aristata

Removal of old car bodies 1980

Corybas fimbriatus

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Dendrobium Ray's Spot 'Superb' AM/AOC 2015 and its Hybrids

David Butler
david.greenvista@gmail.com

Every now and again an Australian *Dendrobium* catches the hybridist's eye, and *D.* Ray's Spot 'Superb' is one such orchid. It has highly coloured purple flowers of good size, shape and raceme habit, but most importantly it is a strong purple without a touch of *D. bigibbum*! This means *D.* Ray's Spot is cool growing so, apart from other considerations, it is valuable to the hybridist as it can be used as both pod or pollen parent. This characteristic makes it more amenable and versatile than 'hot/cold' dendrobiums, which usually are restricted to the role of pod parent. *Dendrobium* Ray's Spot 'Superb' received an Award of Merit from the Australian Orchid Council for Peter & Christina Miles at the Launceston Orchid Society Spring Show in September 2015. When awarded it was a mature plant with 11 flowers on its main inflorescence. The flowers were 40 mm wide and 60 mm long.

The Importance of Recognised Parents in Hybridising

Orchid hybrids are the result of pollination, the forming of seed and eventual planting out of seedlings. Flowering are usually some years away and in the meantime the grower patiently nurtures each seedling to maturity. In many cases the resulting flowers are disappointing but the chance of such a let-down can be minimised, when making the cross, by using at least one parent acknowledged for superior features. Such parents have known qualities and dominant characteristics which can be relied upon to influence the new hybrid in positive ways, and give the desired outcome. Good parents may also have some negative qualities such as poor raceme habit or flower count, but such traits may not be dominant and therefore have no adverse influence on the resulting hybrid.

Several recognised parents come to mind, among which is *D.* Star of Gold 'Bathurst', which gave us *D.* Yondi Tina and other top golds, while *D.* Lorikeet 'Mel' made *D.* Class and other good purples. In each case poor raceme habit and flower count proved to have little or no influence on their progeny, whereas their dominant characteristics have been such a positive influence in producing top quality offspring.

Dendrobium Ray's Spot 'Superb' as a Parent

It is early days but results have been encouraging when *D.* Ray's Spot 'Superb' has been used as either pod parent or pollen parent in making several crosses. It passes on its good floral characteristics, ease of culture, and tidy upright plant habit, so the grower's patient nurturing is usually rewarded by a happy outcome. Each seedling in a cross is an individual and while *D.* Ray's Spot 'Superb' produces consistent and somewhat anticipated results, every now and again something different pops up. These are flowers of unexpected colouring, and descriptions are not as informative as photos.

Dendrobium Ray's Spot 'Superb' Named Hybrids

Dendrobium Touch of Class

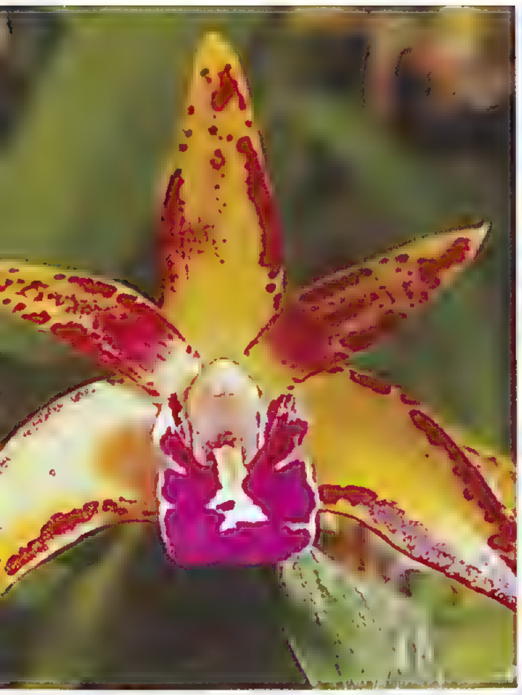
This is *D.* Class x *D.* Ray's Spot, and has been made with *D.* Class 'Windsor Downs' HCC/AOC 2015 (NSW); HCC/ANOS 2016 (NSW) and *D.* Class 'Act', in both cases crossed with *D.* Ray's Spot 'Superb'. Progeny have lovely purple flowers of show quality, the very darkest examples being quite stunning. *Dendrobium* Touch of Class 'Oskar' received an AM from the AOC for Neil Minter at the Blue Mountains Orchid Society Spring Show in 2014.

Dendrobium Samford Shiraz

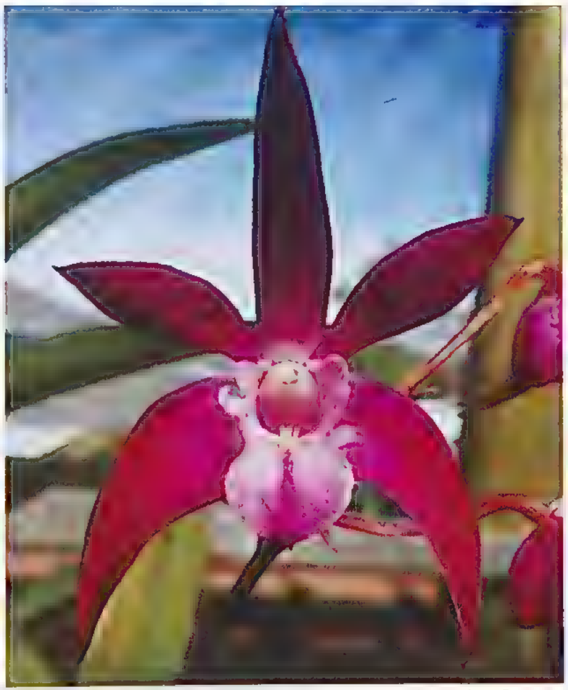
This is *D.* Melbourne x *D.* Ray's Spot using in this case, *D.* Melbourne 'Amber' and *D.* Ray's Spot 'Superb'. The parents of *D.* Melbourne 'Amber' are the red *D.* Lustrous 'Royal Flare' and the yellow *D.* Yondi Tina 'Goliath' FCC/ANOS-AOC 1999 (NSW), both large stately flowers and each being significant in their own right. By introducing *D.* Ray's Spot 'Superb' into the mix we find that *D.* Samford Shiraz offspring follow their parents, but display an even greater spectrum of colours.

Dendrobium Ray's Spot Unnamed Hybrids

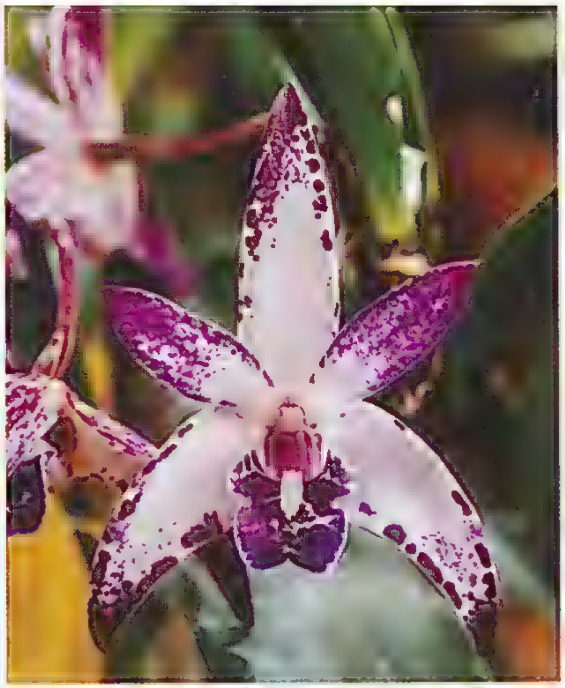
Dendrobium Jazz x *D.* Ray's Spot was bred using *D.* Jazz 'Windsor Downs' x *D.* Ray's Spot 'Superb', the first flowers showing promise in colour and shape but a bit down on floral number. As with most *D.* Ray's Spot crosses, few have flowered so far and *D.* Jazz 'Windsor Downs' often springs



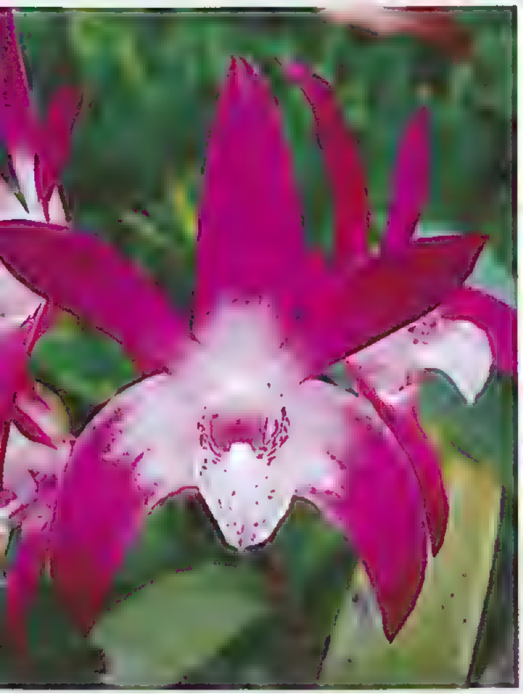
Dendrobium Jazz x *D.* Ray's Spot



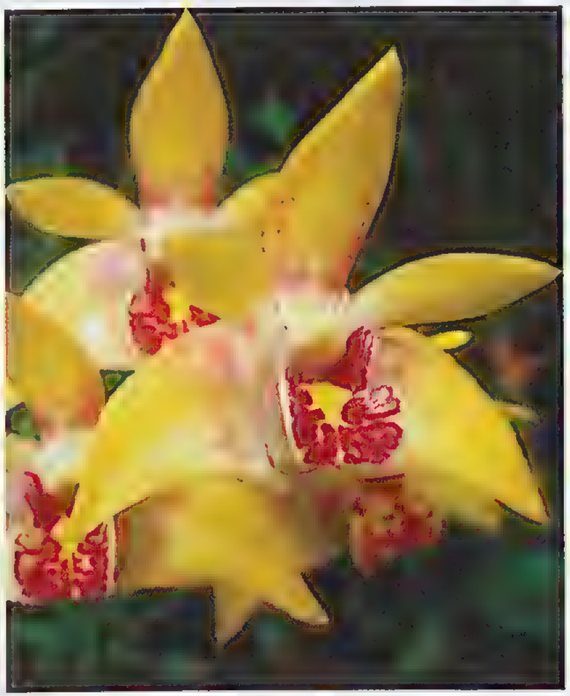
Dendrobium Lustrous x *D.* Ray's Spot



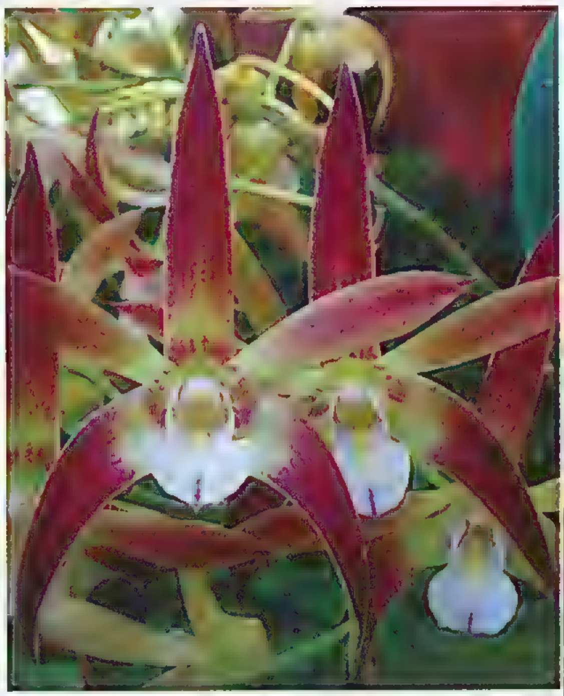
Dendrobium Saigon x *D.* Ray's Spot 'Henk'



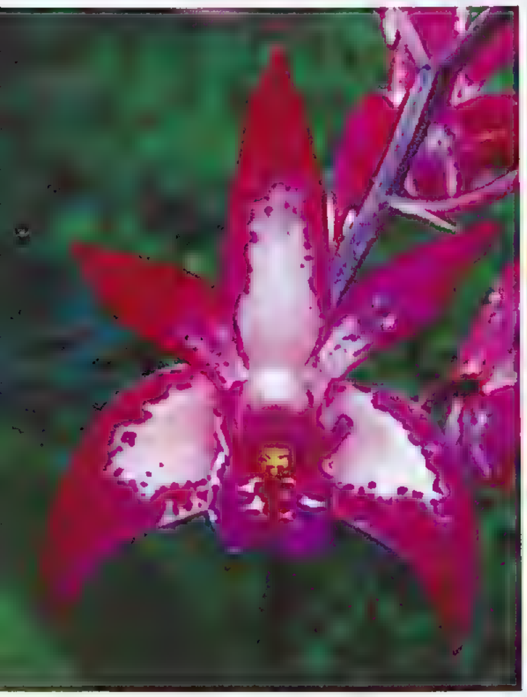
Dendrobium (Stunning x Ray's Spot) 'Ron'



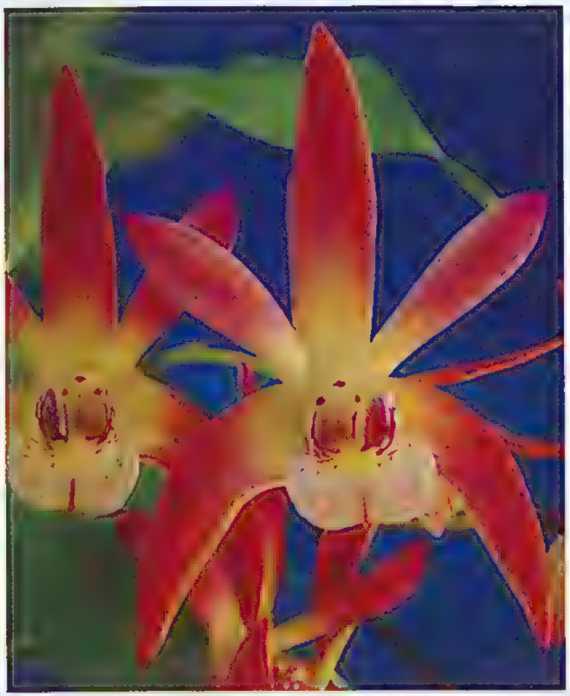
Dendrobium Jazz 'Windsor Downs'



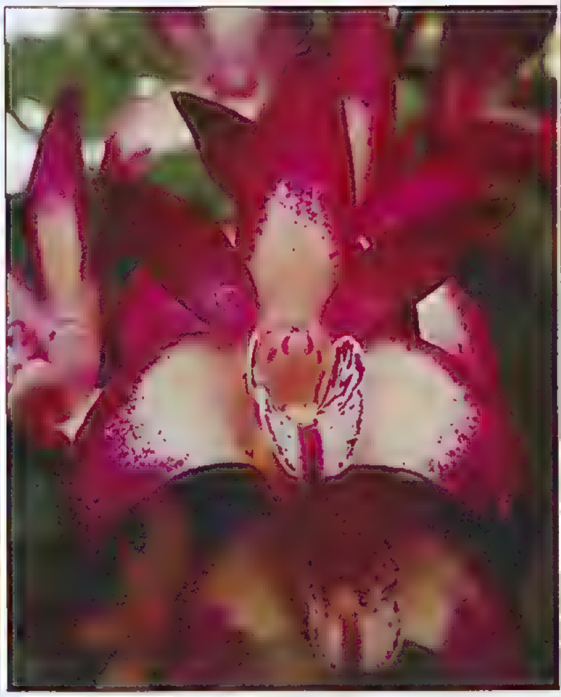
Dendrobium Melbourne 'Amber'



Dendrobium Ray's Spot 'Superb'



Dendrobium Sanford Shiraz 'Ross'



Dendrobium Touch of Class

surprises, so maybe the best is yet to come.

Dendrobium Saigon x *D.* Ray's Spot has been made using *D.* Saigon 'Good Flowers' x *D.* Ray's Spot 'Superb', and the first to flower have been shapely and showy, a rather starkly coloured seedling having been shown by Henk van den Berg at St. Ives.

Dendrobium Lustrous x *D.* Ray's Spot was a cross with few seedlings, but produced large flowers of good shape and colour. Such hybrids are worth remaking.

Dendrobium Stunning x *D.* Ray's Spot resulted in some nice seedlings using *D.* Stunning 'Red Lip x *D.* Ray's Spot 'Superb', some being mostly red and others having a whitish flower with contrasting markings.

Other *D.* Ray's Spot Hybrids

Several other hybrids have been made but their flowers not seen by the author.These include:

D. Tosca 'Tyson' x *D.* Ray's Spot 'Superb'

D. Jonathan's Glory 'Dark Joy' HCC/AOC 1998 (Qld.) x *D.* Ray's Spot 'Superb'

D. Kayla 'Gold' x *D.* Ray's Spot 'Superb'

D. Class 'Pauline' x *D.* Ray's Spot 'Superb'.

Most of the crosses produced plenty of seedlings, and flasks were widely distributed, so no doubt we will be hearing more of *D.* Ray's Spot and its offspring. Maybe it will eventually be recognised as a "good parent".

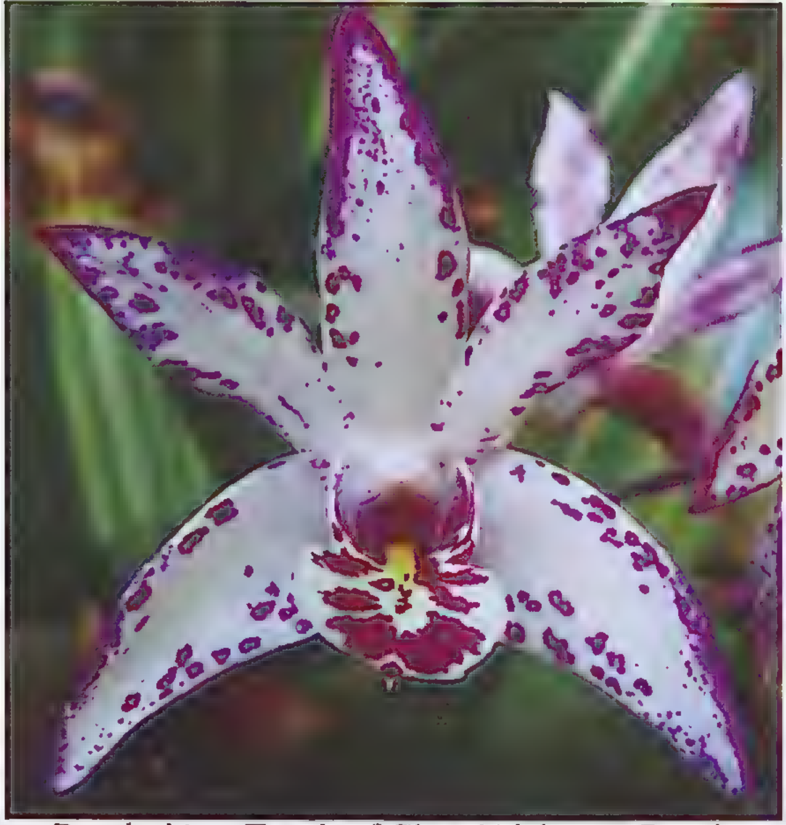
Acknowledgements

With thanks for their help and photos: John Hurst, Tony Maclure, Ron Formby, Neil Minter, Glenice Simmons, Ross Harvey, Chris Pegg, Henk van den Berg, Jody Cutajar and Bill Dobson.

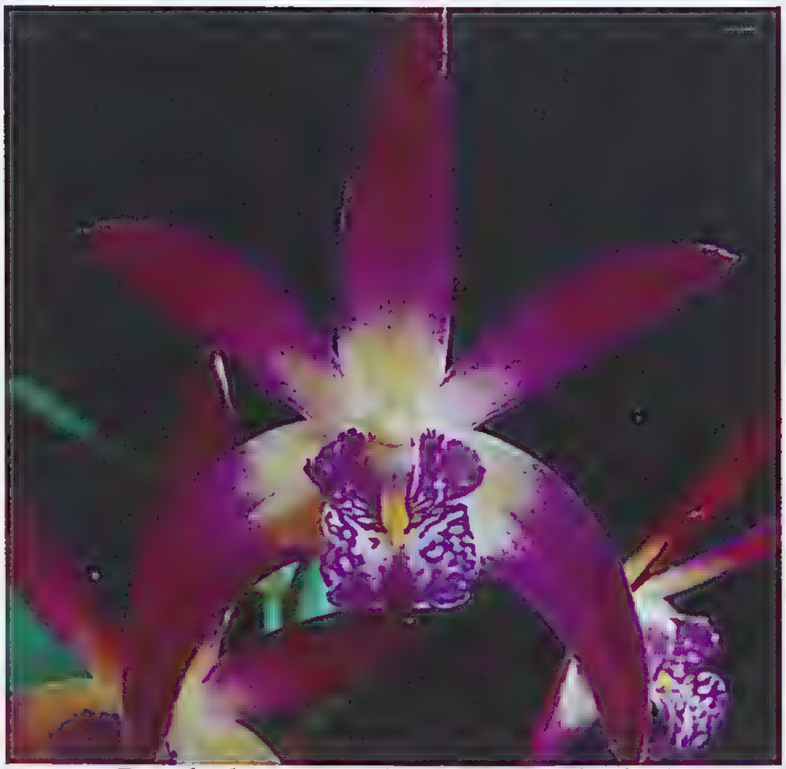
David is a well known successful orchid hybridiser.

STOP PRESS

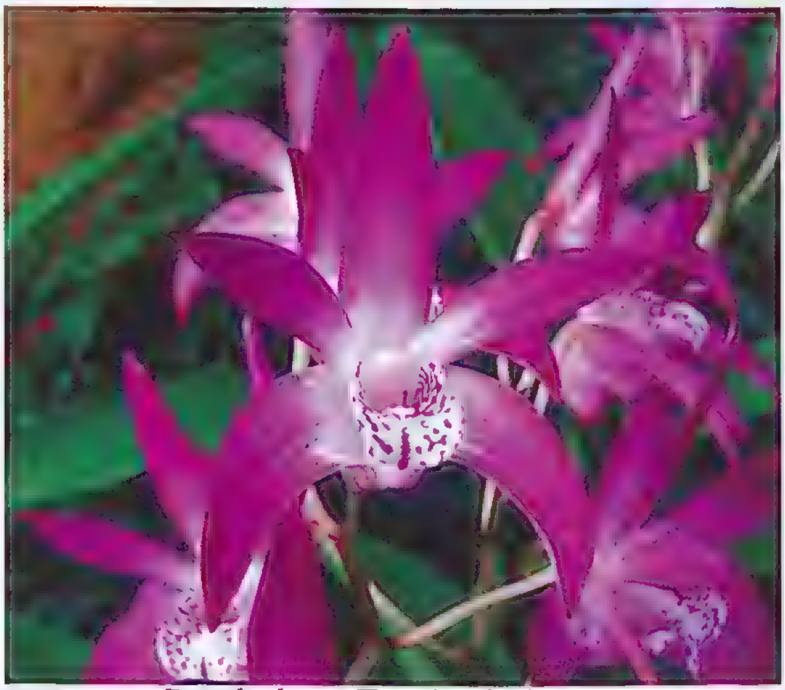
The 9th ANOS Conference and Show, 'Get Going, Get Growing', will be held at the Strathpine Community Centre in Queensland from Wednesday 21st to Sunday 26th August 2019. The event will be hosted by the KABI Goup.



Dendrobium Touch of Class 'Alabaster Rose'



Dendrobium Touch of Class 'Glenice'



Dendrobium Touch of Class

Looking Back on the ANOS Newcastle 2017 Spring Shows

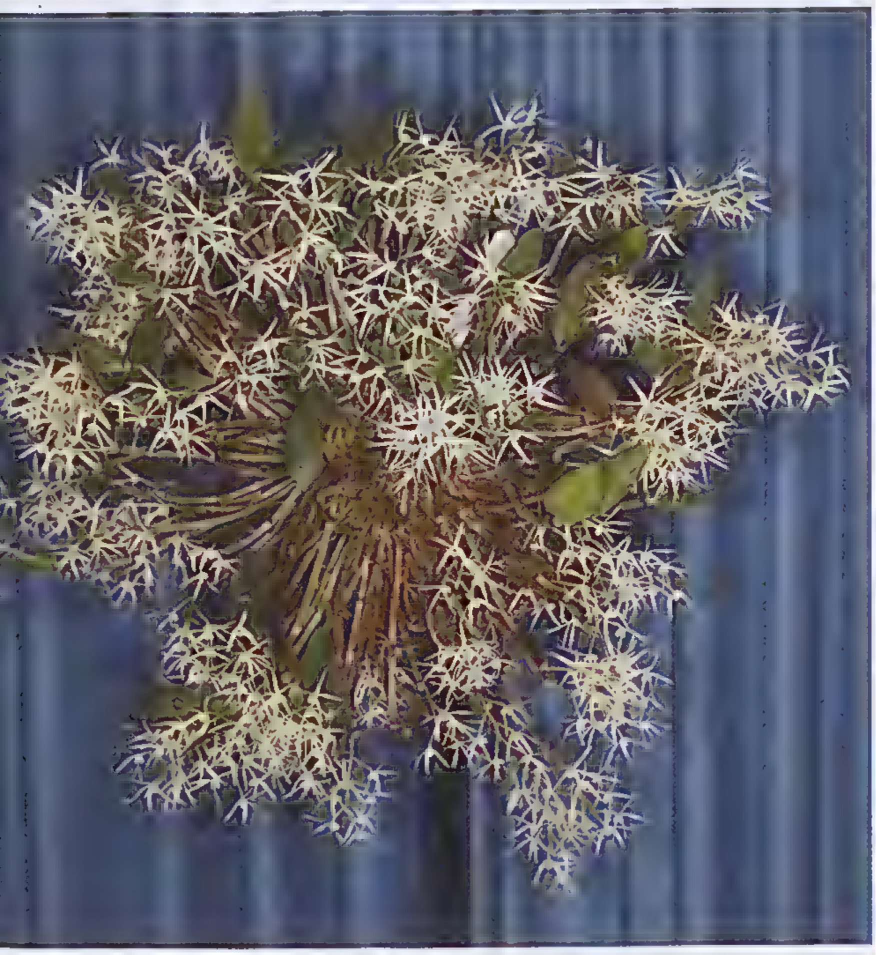
Callyn Farrell, Carole Barnett and Tony Lowe

The ANOS Newcastle Group and its spring shows have become fixtures of the orchid growing community. Since its formation many decorated growers and hybridisers have been strong supporters of the group and its endeavours. With a strong membership and a multitude of talented growers it is no wonder quality plants and displays are continually produced.

Spring Show

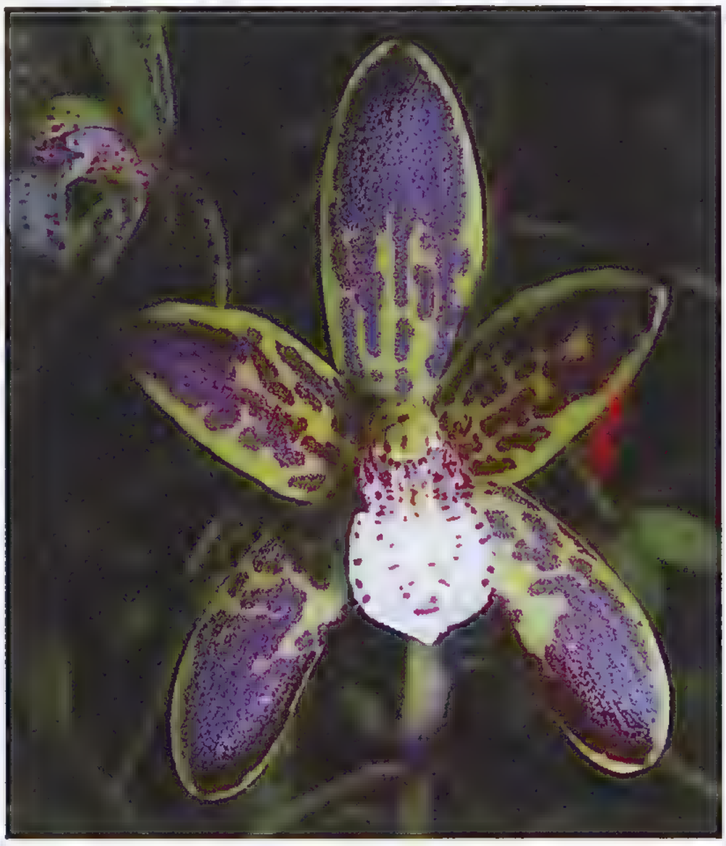
The spring show was a great success and this was due to many splendid entries benched by the membership. While the display of *Dendrobium speciosum* was quite strong, the *Dendrobium* hybrid and *Dendrobium* Section *Rhizobium* sections stole the show. The extremely high quality and variation within these hybrids proves that hybridisation can achieve wonderful results that make for an interesting spring show. The two panels of judges were kept busy as standards were high, some classes having a high number of entries.

There appeared to be a lot of discussion within both panels of judges when deciding on Grand and Reserve Champions. Congratulations to Callyn Farrell and Grahame Young of Down Under Native Orchids for Grand Champion with *Den. aemulum* 'Lyn' HCC/ANOS-AOC and Reserve Champion with *D.* Tweetas *'Violet Lip'* HCC/ANOS, AM/AOC. Two plants of high quality also made it to the champions table, *D.* Dunokayla 'WAP' owned by Wayne Perrin, and *Den. speciosum* 'Elermore' (var. *speciosum* 'Windermere' x var. *curvicaule* 'Palmerston'), grown by Callyn and Grahame of Down Under. *Dendrobium aemulum* 'Lyn' HCC/ANOS-AOC is the first of this species to be awarded by ANOS and sets a benchmark for future awards. The freshness of the flowers, along with its well-proportioned segments and size set it apart from more frequently seen examples.

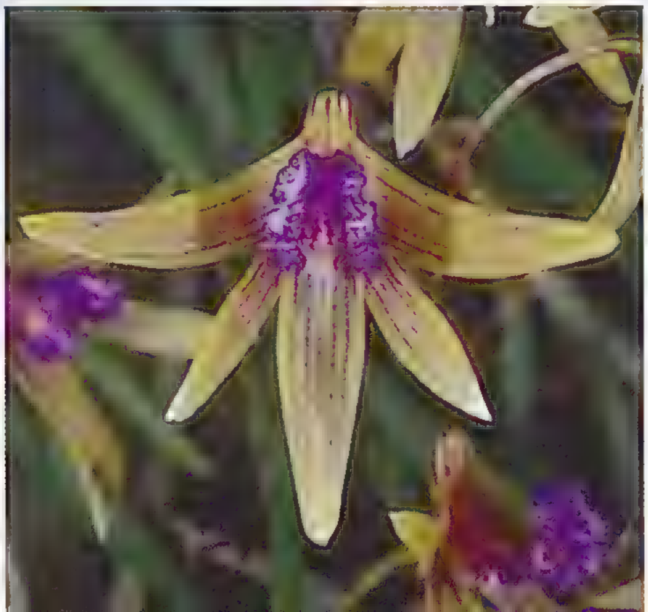


Dendrobium aemulum 'Lyn' HCC/ANOS-AOC 2017.

Right: Dendrobium Tweetas 'Violet Lip' HCC/ANOS, AM/AOC.



Cymbidium canaliculatum'Mt. Moonby'

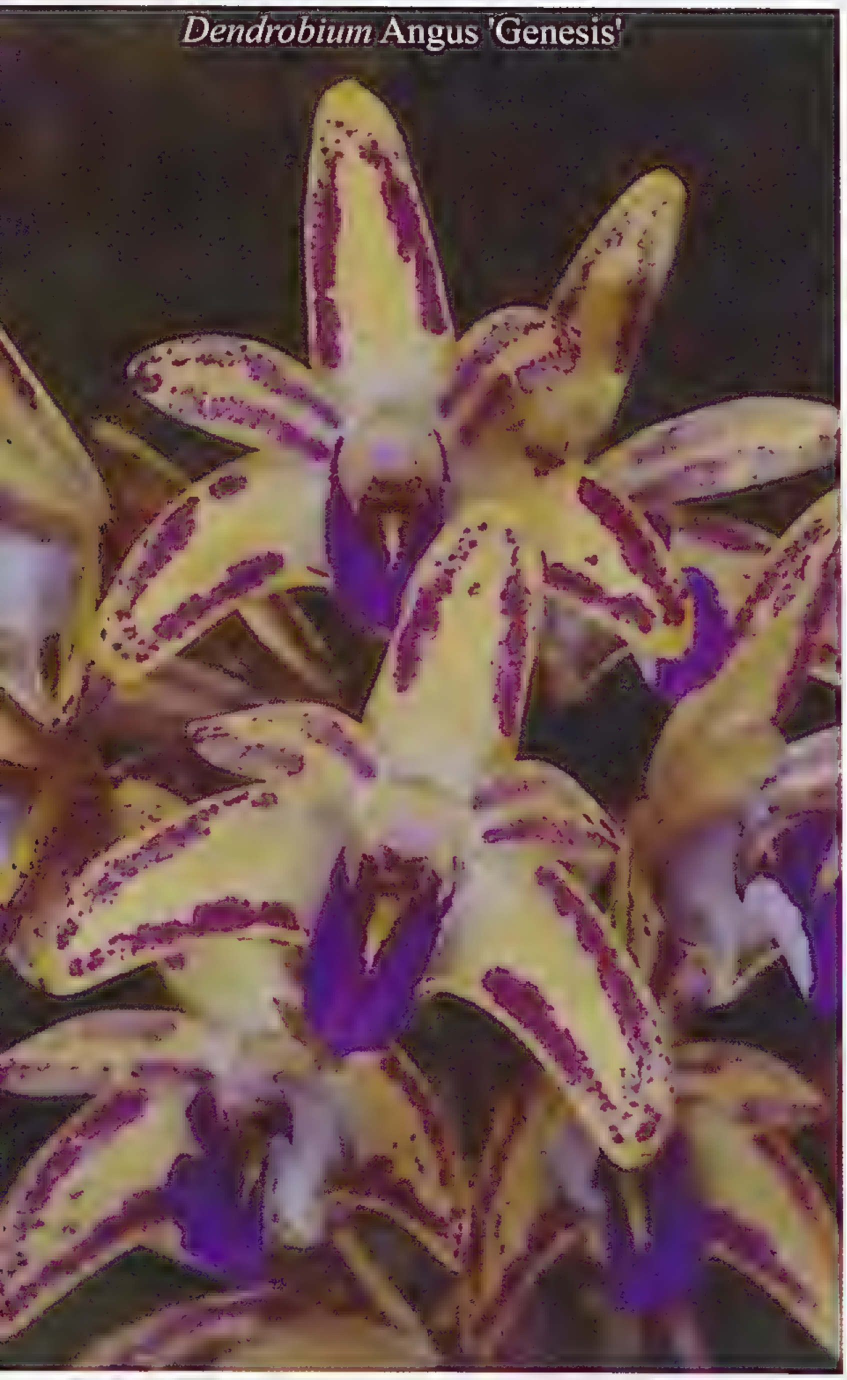


Late Spring Show

For many years this was called the *Sarcochilus* Show, but more recently an increasing number of growers are trying their hand at some of the more difficult genera. The genus *Sarcochilus* has plenty to offer, and on the day captivated many admirers. The show contained predominately *Sarcochilus*, with the largest number of these appearing in the *Sarcochilus* Hybrids section. This highlights the amount of interest hybridisers are generating amongst growers, producing a wide array of patterns and colours.

Along with *Sarcochilus* hybrids, we were fortunate to have a good variety of species on display - not great in numbers, but welcome additions. Species included *Sarcochilus dilatatus, S. olivaceus, Dendrobium antennatum, D. canaliculatum, Cymbidium canaliculatum* and *Phaius tankervilleae.* Lloyd Edwards won Grand Champion with *Sarcochilus* Magic 'Belgarath' and Carole Barnett won Reserve Champion, Champion Species and Champion Novice with *Cymbidium canaliculatum* 'Mt. Moonby'.

The sales tables had orchids that rivalled the benched plants. This ensured that quality orchids were available to members and visitors. A strong following of the general public has developed for the shows over recent years and this would not have been possible if members had not continued to support them by providing quality show plants, sales plants and answering questions, so thank you for your work and dedication to the group. Thanks are also due to Windale-Gateshead Bowling Club for providing a secure, friendly and comfortable venue for the 2017 Spring Shows.


Dendrobium Angus 'Genesis'

Dendrobium aemulum 'Lyn' HCC/ANOS-AOC

Sarcochilus Magic

ANOS Far North Coast Group 2017 Spring Show

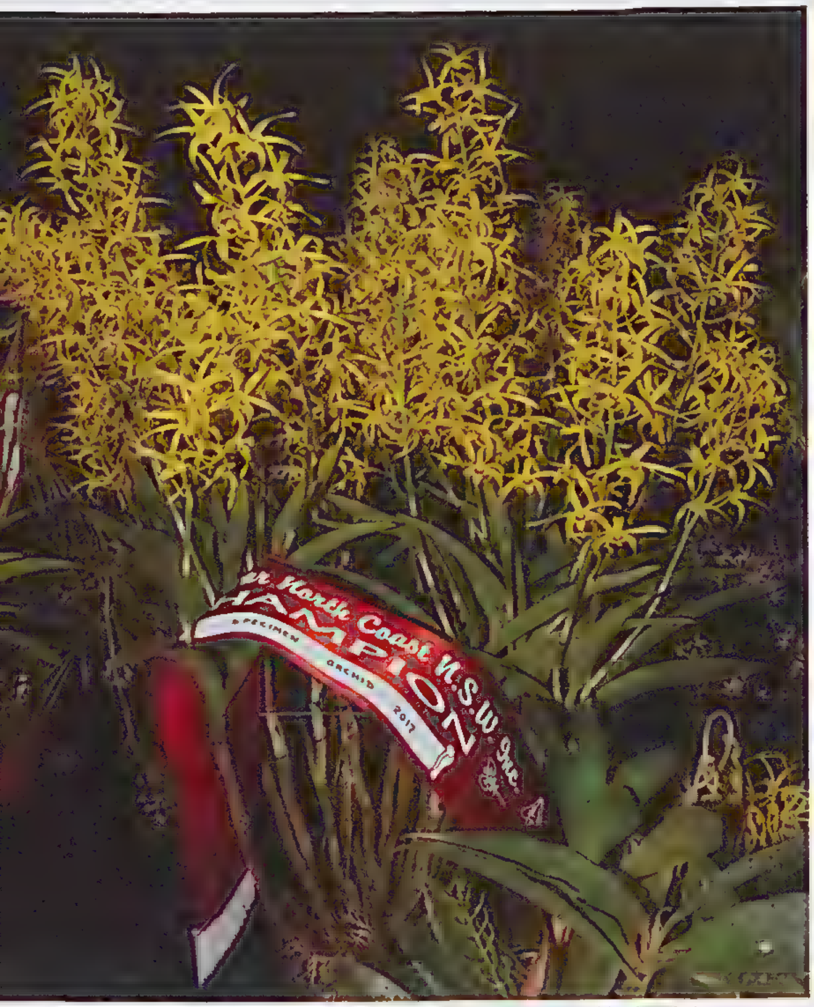
Roslyn Capell
capell666@ozemail.com.au

The Group held another successful show last August, with 142 entries making a colourful and eye-catching display. The Ballina Fair shopping centre venue provides an excellent opportunity to showcase our Australasian native orchids to a large number of people, and there is always a lot of interest in the exhibits and also the sales table.

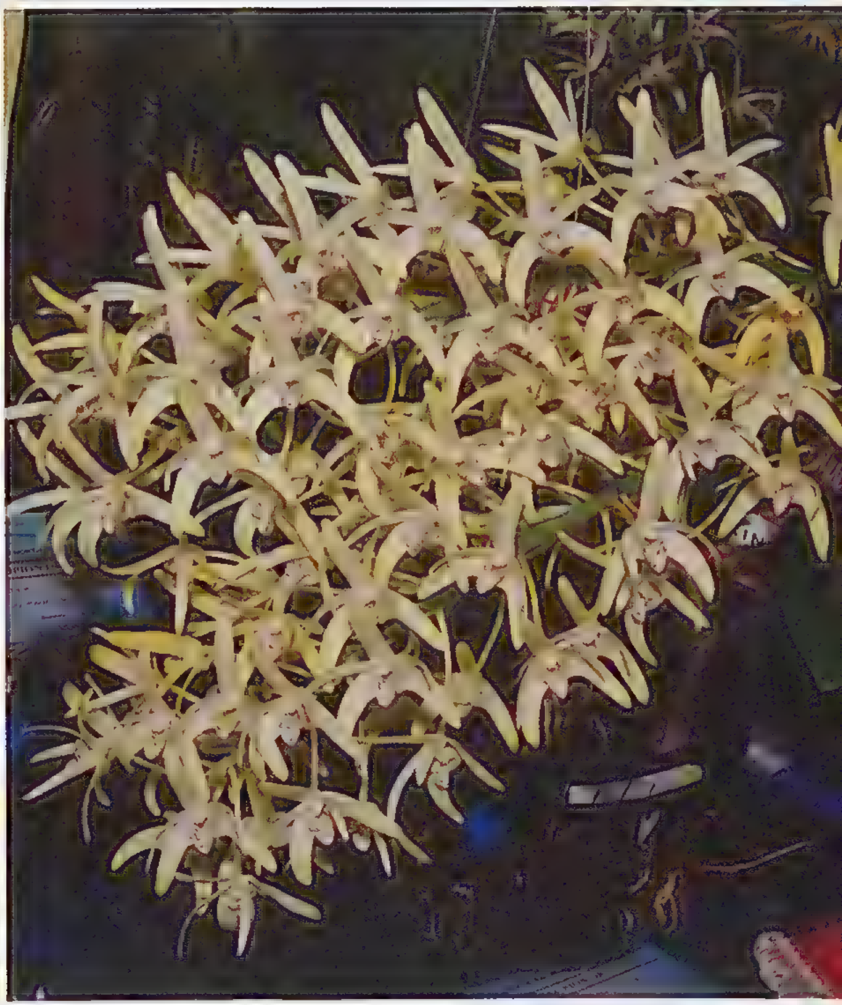
Grand Champion and Champion Native Hybrid was Kevin Foster's plant of *Dendrobium* Our Native (*D. speciosum* x *D. johannis*). Indeed the ANOS Northern Regional judging panel members who judged the show thought it was so fine that they awarded it a Highly Commended Certificate. Kevin named this plant after his wife, so it is now *D.* Our Native 'Deanne Robyn' HCC/ANOS 2017. He is an accomplished grower of warm-growing *Dendrobium* species and hybrids and regularly proves that sect. *Spatulata* and *Phalaenanthe* species and hybrids, with or without cooler-growing species in their background, can be grown very successfully in this region without artificial heat. Excellent results can be achieved if the grower can provide sunny accommodation with a suitable microclimate. Roots need to be well-ventilated at all times and not allowed to be wet at night over the cooler months. Kevin's especially well flowered plant of *D.* Our Native 'Rothwell Gold' HCC/AOC 2001 (Qld) was the Champion Specimen Orchid of the show, and his *D. speciosum* var. *speciosum* ('Windermere' x 'Heather') was Champion First Flowering Seedling (both pictured).

Reserve Champion and Champion Native Species was group president Tony Trigger's *D. speciosum* var. *curvicaule* 'Bee Creek' x *D. speciosum* var. *speciosum* 'National White'. Champion Australasian orchid was a very nice plant of *D.* Gloucester Charm (*D. lineale* x. *D. canaliculatum*) with good colour and broad segments, grown by Keith Skaines. Champion for Culture was *D.* Greta Snow grown by Bevan Burnham.

The range of plants entered varies from year to year, depending a lot on the weather. This year's show was light on entries in the *Dendrobium* sect. *Dendrocoryne* hybrid classes and for *D. speciosum*, but it was a good year for *D. canaliculatum* and inter-sectional hybrids. The work growers are putting into their plants now, and the unknown element of weather over the coming cooler months will all influence the makeup of the 2018 Show.



Dendrobium Our Native 'Rothwell Gold'



Dendrobium speciosum var. *speciosum* ('Windermere' x 'Heather')

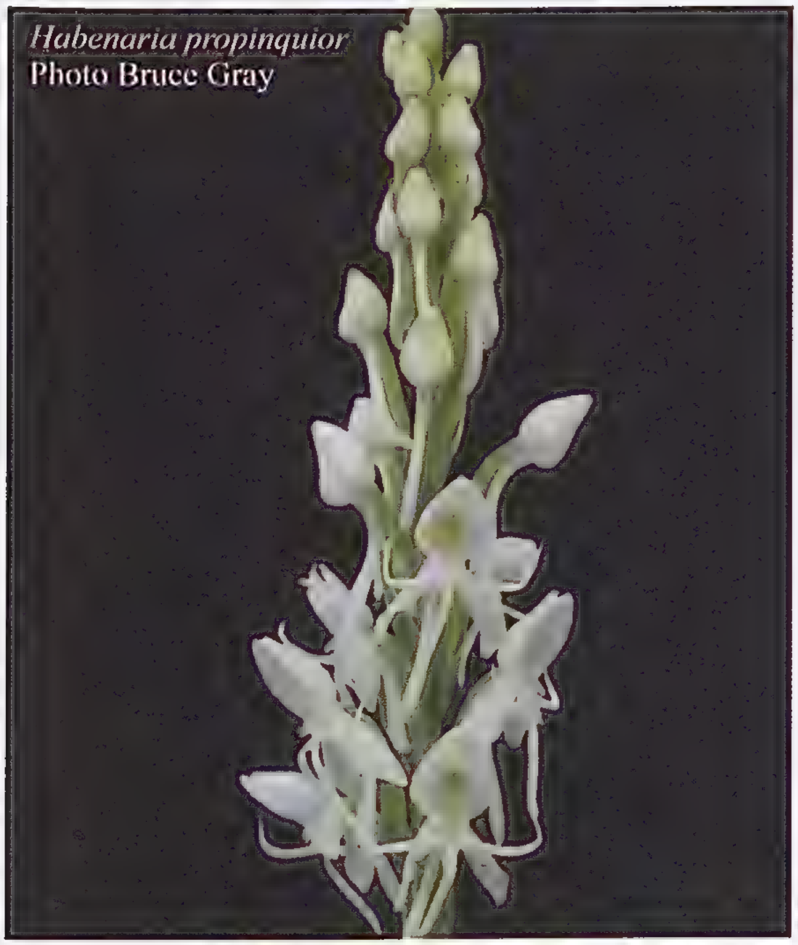
Mounted exhibits at the show.

Habenaria propinquior Rchb.f.

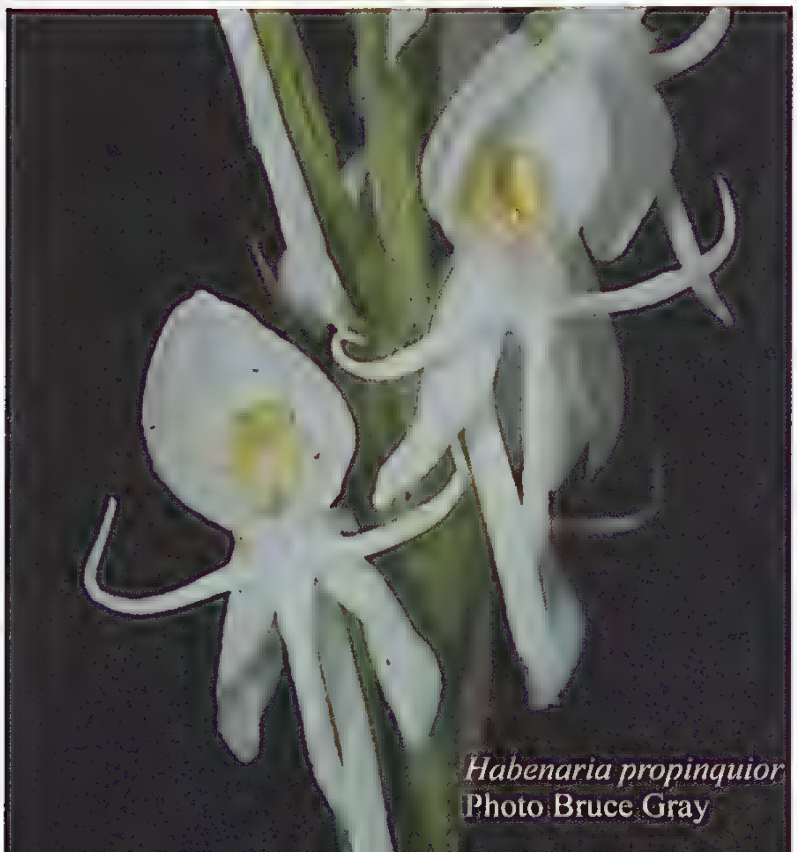
Noel J Grundon
noel.grundon@bigpond.com

There is an old observation amongst orchid lovers in Far North Queensland – “You can always tell where orchid growers come from by where they are looking for orchids in the bush”. People from the tropics look at the tops of the trees and keep stumbling over rocks and tree roots; people from down south look at the ground and keep running into low-hanging branches.

With such a wealth of extravagant epiphytes available in North Queensland, such as the numerous species of *Dendrobium*, the beauty of local terrestrial species is often overlooked unless they are truly large and eye-catching, such as *Calanthe triplicata* or the species of *Phaius*. One of the group of easily overlooked terrestrial tropical orchids is *Habenaria propinquior* Rchb.f.. This species is endemic to eastern Queensland from Rockhampton to the tip of Cape York, and I first observed it in March 2006 on a field trip with Bruce Gray north of Laura to collect vegetative and reproductive material of eucalypts for CSIRO. When the collection of the *Eucalyptus* material was completed, I noticed some white flowers on a small, grass-like plant a short distance away in the table drain of the gravel road where deeper sandy soil had collected from what was a gravelly loam ridge. Bruce immediately identified it as *Habenaria propinquior* and took the accompanying photographs.



Habenaria propinquior
Photo Bruce Gray



Habenaria propinquior
Photo Bruce Gray

The genus *Habenaria* appears to have been little studied in Australia, and there is disagreement between taxonomists about the number of species here. Dockrill (1969) listed 16 species, 14 of which were endemic. Both Jones (1988) and Clements (1989) accepted only 11 members of this genus as occurring in Australia, three of which they listed as occurring also overseas, leaving eight as Australian endemics. Kew’s World Checklist of Selected Plant Families (WSCP, 2017) lists over 900 accepted members in the genus *Habenaria*, of which 20 species and two varieties occur in Australasia, only three of which occur also outside Australia. The increase in number of endemic species from those listed by Jones (1988) and Clements (1989) has been due to more recent work by Jones, Lavarack and Dockrill over the period from 1998 to 2015 (WSCP 2017).There is a lot more work to be done to understand the Australian taxa.

Habenaria propinquior was described in 1871 by the German botanist and orchidologist Heinrich Gustav Reichenbach (1823-1889). Dockrill’s description (Dockrill 1969) is extremely brief, but Jones (1988) provided more data. Summarising descriptions from both references, and from my own observations on the plants north of Laura, plants are 25–40 cm high with a basal rosette of a few narrow, lanceolate leaves, about 3–7 cm long by 3–8 mm wide. The raceme is few-flowered bearing up to 25 uncrowded, white flowers about 8 mm across. The dorsal sepal is ovate and hooded, up to 6 mm long and 4 mm wide. The lateral sepals are up to 7 mm long, but at about 3.5 mm wide are somewhat narrower than the dorsal sepals. The lateral sepals are widely divergent and obliquely deflexed. The smaller petals, up to 6 mm long and 2 mm wide, are partly enclosed by the dorsal sepal. The deeply three-lobbed labellum is up to 7 mm long, and curves back towards the dorsal sepal. The labellum spur is filiform in shape, up to 12 mm long, and slightly curved below the other flower parts. The overall view is of a pleasant orchid with the labellum giving a suggestion of a human figure with wide out-flung arms of welcome saying, "Hey, look at me!".

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WCSPF 2017. World Checklist of Selected Plant Families. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; http://apps.kew.org/wcsp/ Retrieved 2017-03-01.

The author lives in North Queensland and has some experience with the orchids there.

Report from The National Registrar of Judges

Dave Groffen
agroffen@bigpond.com

The revision of the Judges Handbook is an ongoing project and has resulted in the publishing of Version 7.0, which replaces all previous versions. The handbook is available for download from the ANOS website under the Judging tag. There are still a number of suggestions for changes to the handbook to be fully considered and these will lead to a further revision being published, hopefully in the first few months of this year.

There have been 38 awards granted in 2017, bringing the total number of ANOS awards to 301. Nine of these were granted at the Kempsey Speciosum Spectacular, showing that this annual event is still one of the premier native shows, even when it is not hosting a conference.

There were 2 First Class Certificates, 9 Awards of Merit, 10 Highly Commended Certificates, 14 Awards of Cultural Commendation, 2 Awards of Distinction, and a first ever Award of Botanical Excellence.

The first ever FCC/ANOS for a species orchid was awarded to Bill & Lorraine Dobson's plant of *Sarcochilus dilatatus* 'Lily' in March. This beautiful specimen of large colourful flowers was also awarded an ACC for excellent culture and flowering.

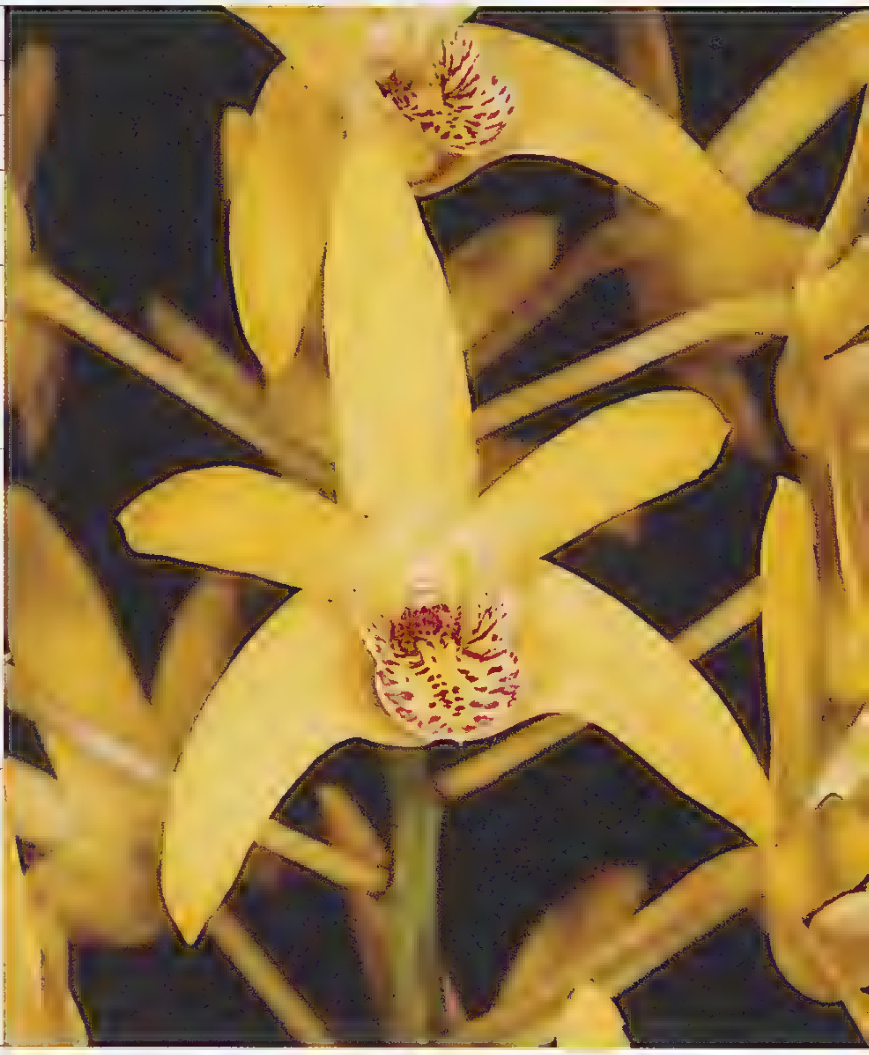
In September the judges who attended the Kempsey Speciosum Spectacular were treated to the best example of a *Dendrobium speciosum* var. *curvicaule* they had ever seen. Resulting from a selfing of the very highly awarded 'Daylight Moon', this 'Clair de Lune' cultivar was so large and well arranged that it was unable to be transported to the venue without risk of damage and was judged at owner Tony Blewitt's home. It received an FCC, the first to a *D. speciosum,* and an ACC for its 18 very well arranged racemes. The owners of both FCC awarded plants are to be congratulated for their efforts to grow, prepare and present their plants to the panels in prime condition.

Often referred to as the world's smallest orchid, *Bulbophyllum globuliforme,* grown by Gerry Walsh was granted an ACC for excellent culture in October. After more than 50 years of never finding an exhibit for which an ABE was appropriate the NSW panel also granted this tiny orchid this award. The award category narrowly escaped being made redundant by a poll of all judges during the year and thus fortunately was still available to be granted to this miniature species. Full details and award images, many of which have also been published in this and earlier editions of *The Orchadian,* may be viewed on our website at http://anos.org.au/judging.

We look forward to the opportunity to award many more worthy plants in 2018. Growers who feel they have plants good enough to be considered for awards outside of ANOS judged show events should contact their Regional Registrar as listed in *The Orchadian.*

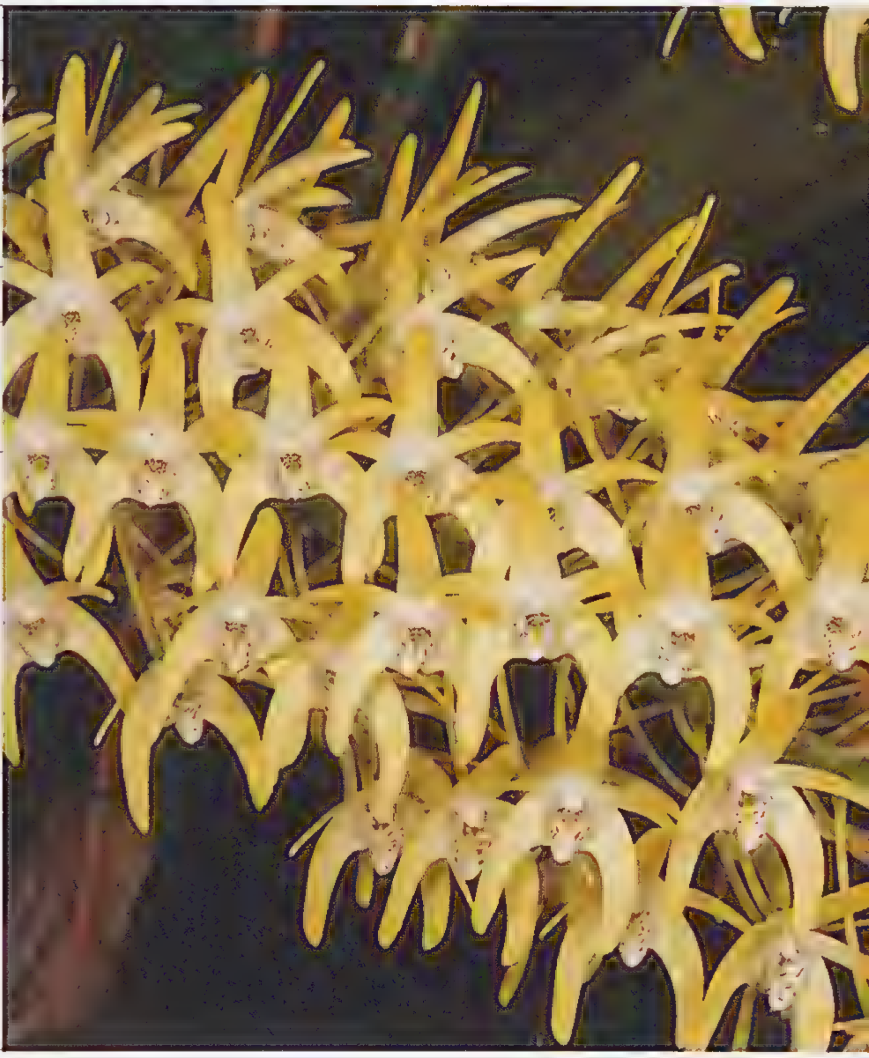
#283 *Dendrobium* Duno Marilyn 'Brian' AM/ANOS 2017

Points	81.3
Owner	Henk van den Berg
Date	2 September 2017
Event	Kempsey Speciosum Spectacular
Photos by	Bill Dobson
Number of:	
flowers	40
inflorescences	3
Measurements(mm):	
flower across	44
vertical	60
petal	25L 10W
sepal	25L 13W
dorsal	30L 12W
labellum	15L 12W
inflorescence length	190
Detailed avge points:	
shape(25)	20.9
colour(20)	16.9
size(15)	12.3
substance/texture(10)	8.5
floriferousness(15)	11.0
habit/attractive(15)	11.7



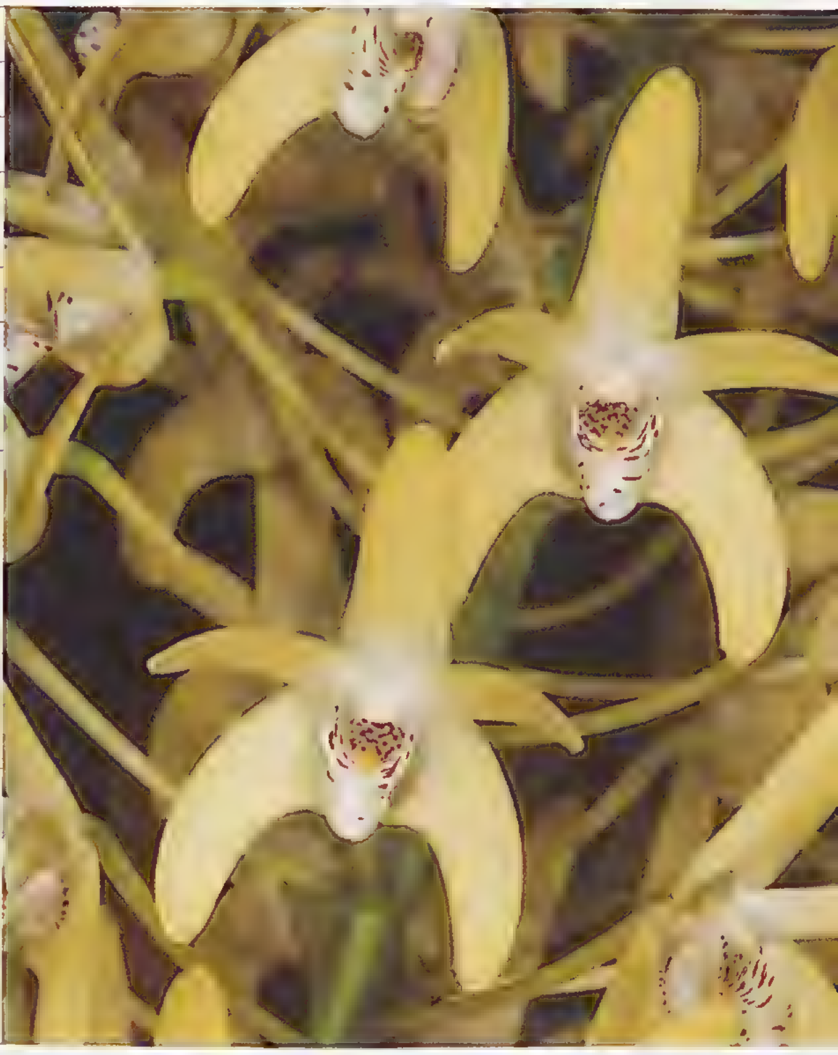
#284 *Dendrobium speciosum* 'Maddy' HCC/ANOS 2017

Points	78.7
Owner	T. & W. Walmsley
Date	2 September 2017
Event	Kempsey Speciosum Spectacular
Photos by	Bill Dobson
Number of:	
flowers	492
inflorescences	4
Measurements(mm):	
flower across	36
vertical	49
petal	29L 5W
sepal	26L 7W
dorsal	20L 6.5W
labellum	13L 7W
inflorescence length	700
Detailed avge points:	
shape(25)	19.7
colour(20)	16.4
size(15)	11.4
substance/texture(10)	7.8
floriferousness(15)	11.5
habit/attractive(15)	12.0



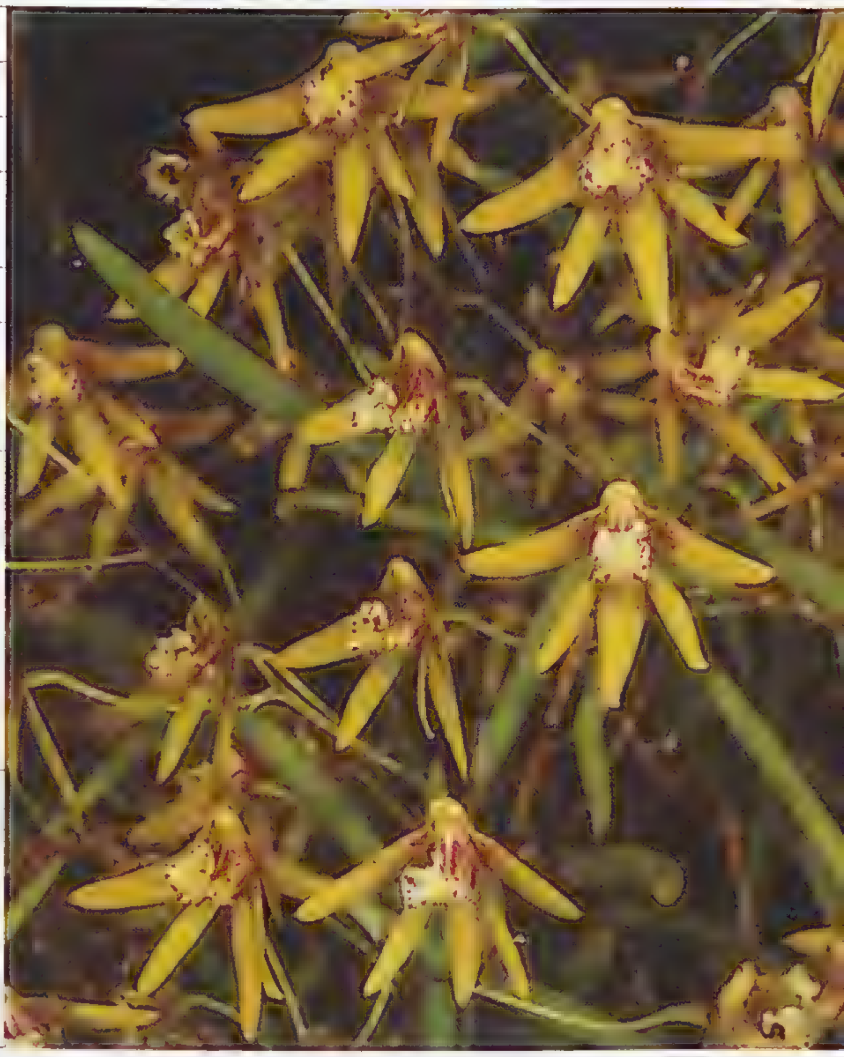
#286 *Dendrobium speciosum* var. *curvicaule* 'Palmerston Mist Mark' HCC/ANOS 2017

Points	78.0
Owner	T. & W. Walmsley
Date	2 September 2017
Event	Kempsey Speciosum Spectacular
Photos by	Bill Dobson
Number of: flowers inflorescences	 390 4
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	 34 48 30L 4W 28L 7W 31L 7W 15L 7W 650
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	 20.1 16.0 11.2 7.7 11.5 11.6



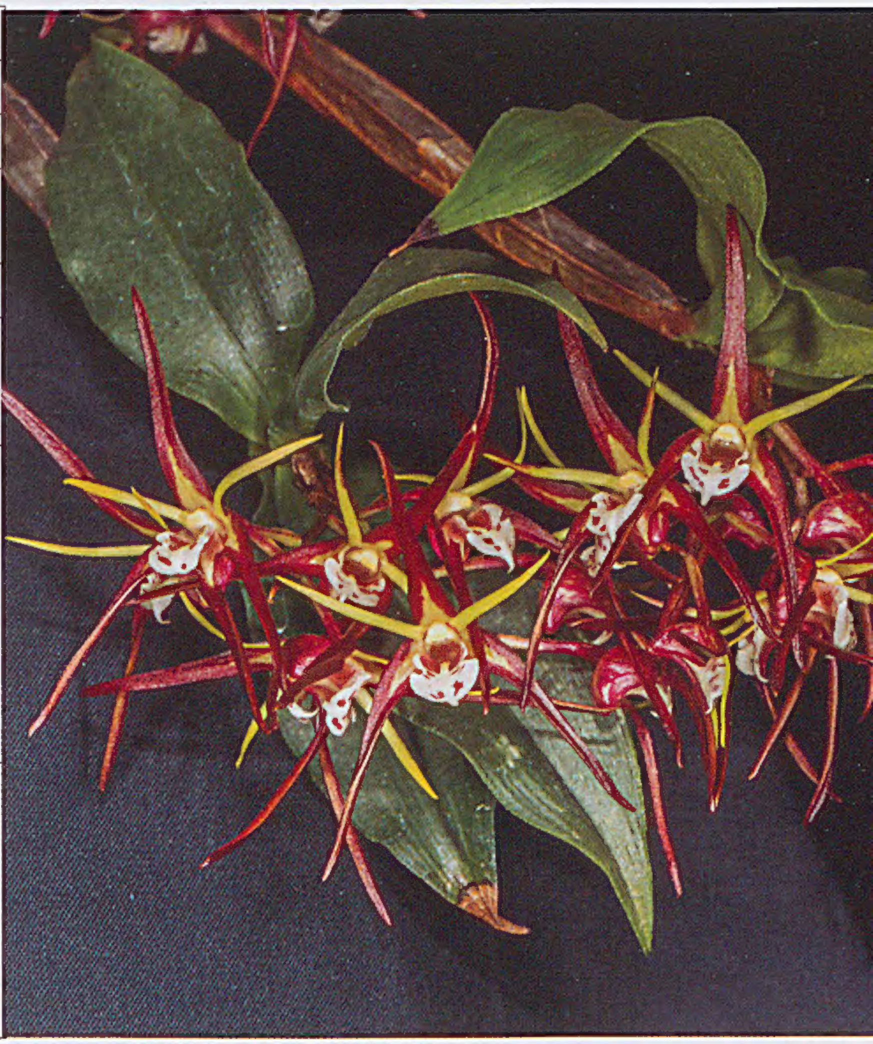
#287 - 288 *Dendrobium* Tweetas 'Mustard' AM-ACC/ANOS 2017

Points	80.3 (ACC 85.3)
Owner	Keith Scott
Date	2 September 2017
Event	Kempsey Speciosum Spectacular
Photos by	Bill Dobson
Number of: flowers inflorescences	 288 96
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	 28 21 17.5L 3W 16.5L 4W 18L 4W 9.5L 5.5W 41
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	 19.7 16.3 10.7 7.8 13.3 12.4



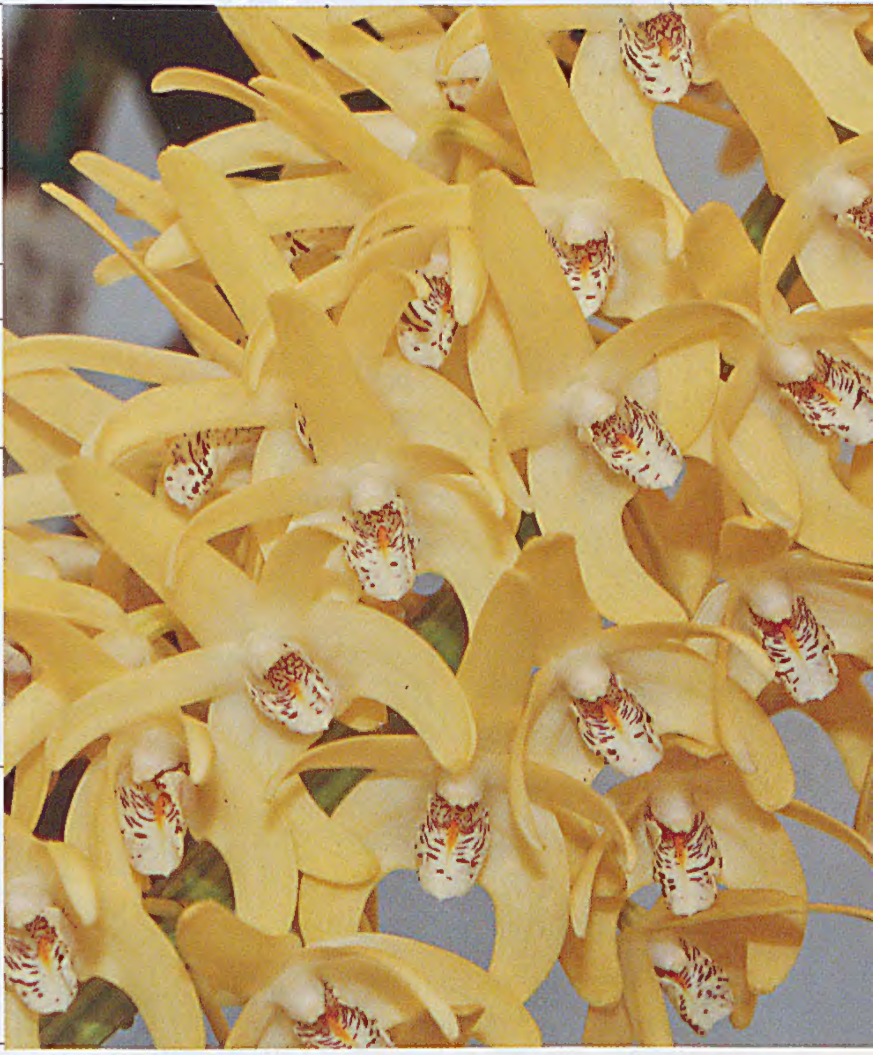
#289 *Dendrobium tetragonum* 'Red Hot' AD/ANOS 2017

Points	AD for colour
Owner	Henk van den Berg
Date	2 September 2017
Event	Kempsey Speciosum Spectacular
Photos by	Bill Dobson
Number of: flowers inflorescences	 74 22
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	 23 38 16L 1.5W 25L 2.5W 20L 3.5W 11L 6.5W 250
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	n/a



#290 *Dendrobium speciosum* var. *curvicaule* 'Golden Daylight' HCC/ANOS 2017

Points	78.0
Owner	T. & W. Walmsley
Date	2 September 2017
Event	Kempsey Speciosum Spectacular
Photo by	Bill Dobson
Number of: flowers inflorescences	 480 4
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	 38 53 30L 6W 26L 7.5W 32L 7W 13L 7W 740
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	 19.6 16.2 11.9 7.8 12.1 10.4



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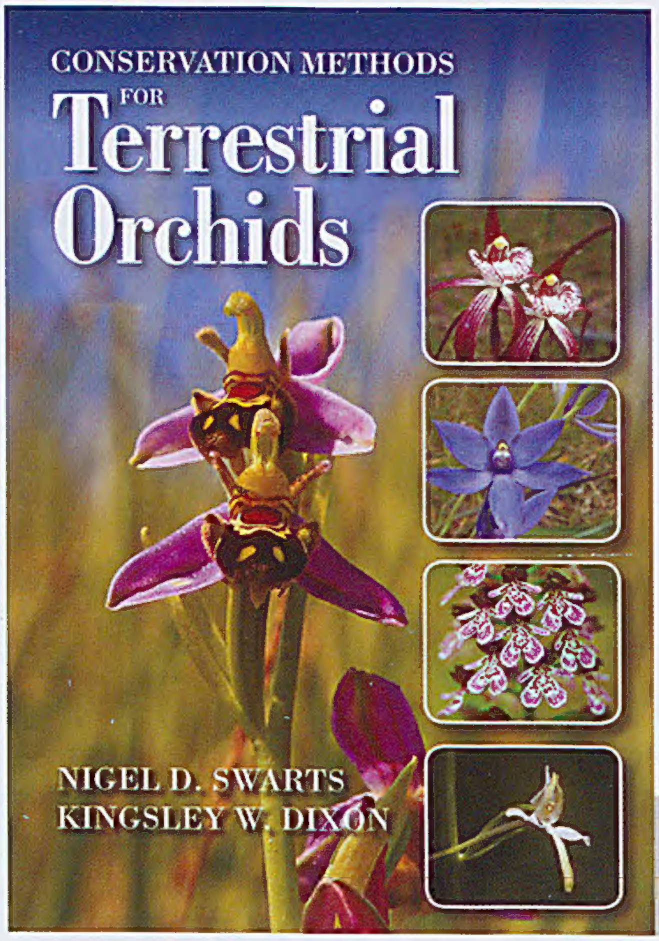

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ANOS Newcastle Autumn Show
Weekend of 21st - 22nd April 2018 Adamstown Bowling Club, 504 Glebe Road, Adamstown. Saturday & Sunday 10 am - 4 pm.

ANOS Macarthur Autumn Show
Saturday 12th May 2018, Rosemeadow Marketplace, Rosemeadow 2560. 9 am.

Tinonee Nursery Open Day
Workshops on Saturday14th July 2018, Show on Sunday15th. 768 Tinonee Road, Tinonee 2430. Sunday 9 am - 4 pm.

ANOS Central Coast Spring Show
Friday17th - 19th August 2018, Narara Valley Nursery, 2 Manns Road, Narara 2250. 9 am - 4 pm

ANOS Newcastle Spring Show
Weekend of 25th - 26th August 2018, Windale - Gateshead Bowling Club, 2A Lake Street, Windale 2306. Saturday & Sunday 10 am - 4 pm.

ANOS Kabi Group Inc. Show
Weekend of 18th & 19th August 2018, Tom Petrie Room, Strathpine Community Centre, 199 Gympie Road, Strathpine. Parking off Mecklem St. Saturday 9am-5pm, Sunday 9am-2pm.

Dendrobium Speciosum Spectacular & Australasian Species & Hybrid Show Kempsey
Friday 31st August 2018 until Sunday 2nd September, Kempsey Dirt Bike Track, Greenhill via Kempsey. Set up: Friday 31st August (noon to 5pm) & Saturday 8 am to 9 am.

ANOS Illawarra Spring Show
Weekend of 8th - 9th September 2018, Old Courthouse, Cliff Road, Wollongong 2500. Saturday 9 am to 4 pm, Sunday 9 am to 3 pm.

ANOS Sydney Group Spring Show
Saturday 8th September 2018, Eden Gardens (Pandorea Room) 307 Lane Cove Road, North Ryde 2113. 9 am - 4 pm

ANOS Warringah Spring Show
Weekend of 8th - 9th September 2018, Forestville Memorial Hall, Starkey St., Forestville 2087 Saturday 9 am to 4 pm, Sunday 9 am to 3 pm.

The Native Orchid Society of South Australia Show
Weekend of 8th - 9th September 2018, St Bernadettes Primary Scool Hall, Main South Road, St Mary's. 10 am to 4 pm both days.

Native Orchid Society of Toowoomba Show
Friday 21st to Monday 24th September 2018, St John's Lutheran Church Hall, 431 Bridge St, Toowoomba.

ANOS Macarthur Spring Show
Saturday 22nd September 2018, Rosemeadow Marketplace, Rosemeadow 2560. 9 am.

ANOS Victoria Inc. Annual Show
Weekend of 29th - 30th September 2018, Mount Waverley Community Centre, 47 Miller Crescent, Mount Waverley. 9 am to 4 pm both days.

ANOS Melbourne Suburbs Inc. Spring Show
Saturday 6th October 2018, Montrose Town Centre, 935 Mount Dandenong Tourist Rd, Montrose VIC 3765. 10 am – 4 pm (plant sales from 9.30 am).

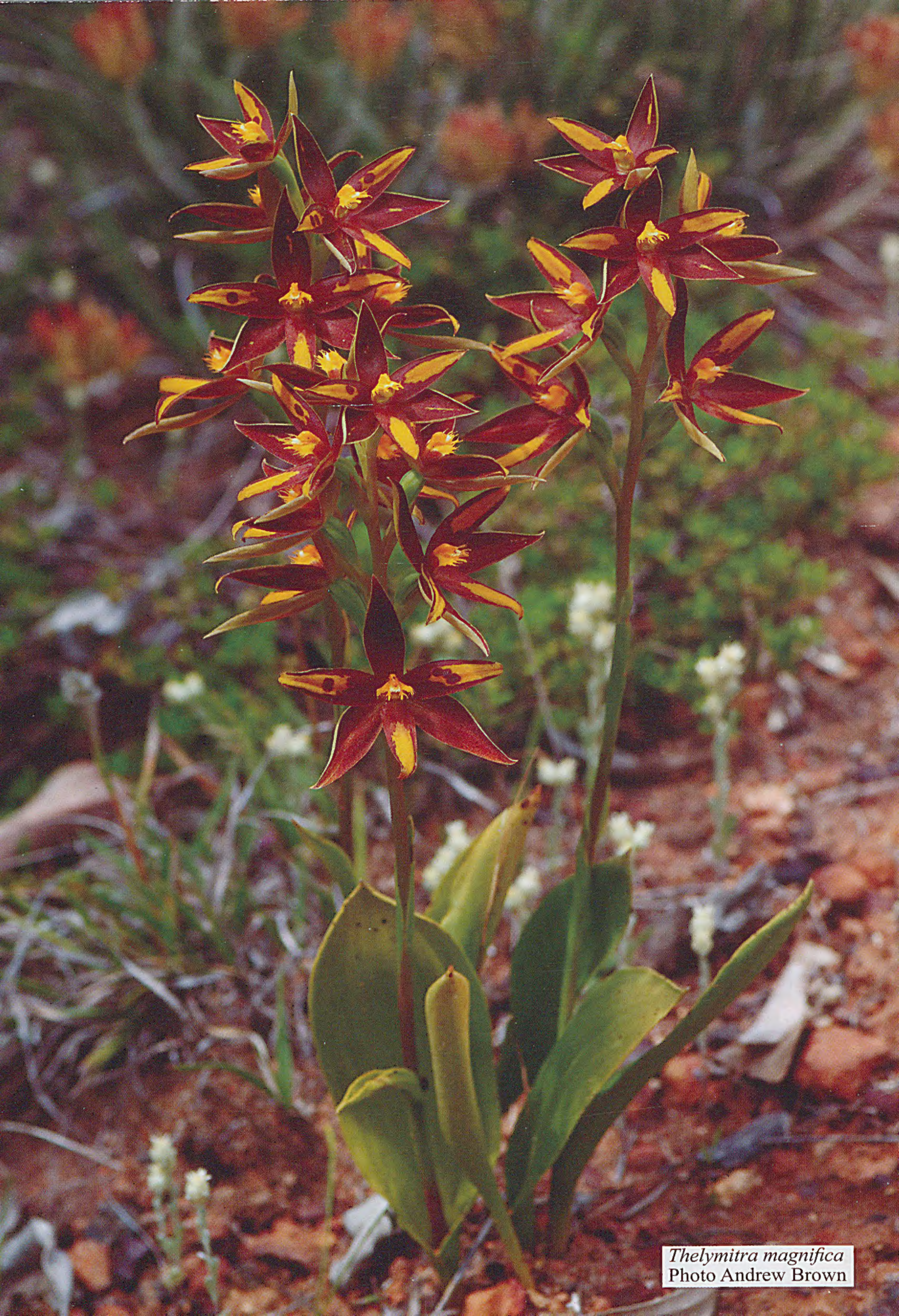
ANOS Illawarra Sarcochilus Show
Weekend of 13th - 14th October 2018 Old Courthouse, Cliff Road, Wollongong 2500. Saturday 9 am to 4 pm, Sunday 9 am to 3 pm.

ANOS Central Coast Late Spring Show
Weekend of 13th - 14th October 2018, Narara Valley Nursery, 2 Manns Road, Narara 2250. Saturday & Sunday 9 am - 4 pm.

ANOS Sydney Group Sarcochilus Show
Saturday 20th October 2018 Kellyville Village (shopping centre), 90 Wrights Road, Kellyville. 9 am to 4 pm.

ANOS Newcastle Sarcochilus Show
Weekend of 20th - 21st October 2018, Windale - Gateshead Bowling Club, 2A Lake Street, Windale 2306. Saturday & Sunday 10 am - 4 pm.

ANOS Macarthur Late Spring Show
Saturday 27th October 2018, Intersection Oran Park Drive & Peter Brock Drive, Oran Park. 9 am to 4 pm.



Thelymitra magnifica
Photo Andrew Brown